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ABSTRACT

This newsletter, published for eight years, was first known as "English for Science and Technology" (or the "EST Newsletter"), and later, with the third volume, as "English for Specific Purposes" (the "ESP Newsletter"). A function of the ESP Clearinghouse, the publication was intially sponsored by the AID/NAFSA Liaison Committee (AID = Agency for International Development; NAFSA = National Association for Foreign Student Affairs). The 96 issues compiled here were published monthly between April of 1977 and March of 1985. Typical issue contents include bibliographies and updates on clearinghouse-held materials on English for science and technology, book and materials reviews and abstracts, program descriptions, and instructional and administrative notes submitted by professionals in the field. (MSE)

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ED258442

ENGLISH FOR SCIENCE AND TECHNOLOGY

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ENGLISH
for
SCIENCE AND TECHNOLOGY

April, 1977

A Newsletter sponsored by AID/NAFSA Liason Committee

Karl Drobnic, Editor
ELI, AdS A100 Oregon State University
Corvallis, Oregon. 97331

FROM THE EDITOR:

This first issue of the EST Newsletter comes to you through funding granted by the AID/NAFSA Liason Committee to establish an English for Science and Technology Clearinghouse and Newsletter. To borrow directly from the grant proposal, it is the purpose of the Clearinghouse and Newsletter to:

a. Collect research in EST, both published and unpublished.
b. Solicit descriptions of EST teaching methodologies.
c. Publicize the importance of EST within the discipline of ESL.
d. Serve as a resource distribution center.

With these objectives in mind, you are all invited to help build the Clearinghouse by submitting descriptions of what you are doing in the area of EST/ESL. We will publish as much of this material as possible and see that it gets distributed to others with like interests.

We are especially interested in receiving descriptions of what texts and materials people are using to teach EST, what their class composition is (pre-university ESL students, vocational ESL students, academically enrolled students having English problems) and what materials instructors have found useful in the area of ESL teacher training. All other material is equally welcome however.

PUBLICATION POLICY OF EST NEWSLETTER

The EST Newsletter will be published monthly. The first two issues are being distributed free to all the intensive English programs and all people interested in EST for which we have addresses. Subsequent issues will be by subscription, the price of which is calculated to cover printing and mailing costs. A subscription form will be found on the back page of this issue.

FOR THOSE NEW TO EST:

For several years linguists and researchers such as Louis Trimble, Larry Selinker, Henry Widdowson, John Lackstrom, and others have been reporting research concerning the unique demands that science makes on English. It has been found that these demands can constitute a considerable barrier to academic study for the non-native speaker even when that student can be considered fluent in the standard language. The researchers have explored and catalogued many differences between standard English and EST, and as the evidence of conflict between standard English and EST has accumulated, the need for adjusted ESL methodologies has intensified.

Much of the research indicates that EST is eminently teachable, eminently practical, and most especially, eminently worthwhile to the science-bound foreign student. The ESL teacher does not need any special training or knowledge of the sciences to teach EST. He does, however, need to know the special ways science uses English. EST is actually an artificial language that emphasizes certain language uses and techniques not common in standard English.

An interesting example of differences is verb choice in the writing of science reports. All information reported by the scientist is from observations and experiments already concluded. However, science reports are not couched in the past tense. They exhibit a great variety of verb choice, and these choices are often made according to well-defined conventions. Another example is the area of noun compounding. In its striving for conciseness and precision, EST writing often uses strings of nouns confusing to the non-native speaker.(e.g. "data reproduction systems"). These compounds are made according to definite rules, and once the student learns these, he is able to make sense out of his textbooks with a little more ease.

There is much, much more that can be adapted into ESL programs with some study, some imagination, and work. The British have already published a number of texts which can be adapted to American teaching methods, and American publishers are encouraging American researchers to develop some materials directed towards American teaching methods. EST is an area of growing interest, and if this newsletter is your introduction to it, welcome.

OBTAINING MATERIALS FROM THE CLEARINGHOUSE

Under terms of the grant establishing the EST Clearinghouse, the Clearinghouse is to act as a resource distribution center of materials relating to EST. There will be a monthly updated bibliography of materials in the Clearinghouse, with new additions to the Clearinghouse carried in each month's issue of the Newsletter. Requests for materials from the Clearinghouse will be filled on an 'at cost' basis. The cost will cover reproduction and mailing, and will be minimal.

Material is being organised into special interest packets. It will soon be possible to request materials from the Clearinghouse according to specific concerns, such as "Reading and EST" or "Verb Choice in EST Writing", or from one of several other catagories now being established. A bibliography of material now available from the Clearinghouse can be found on a later page of this Newsletter.

LITERARY TRAINING AND EST

Because many ESL teachers come from a literary background, especially suitable to this introductory issue of the Newsletter is an article by R.M. Todd Trimble and Louis Trimble that was printed in USIS' FORUM, a journal unavailable in the US. The article is entitled "LITERARY TRAINING AND THE TEACHING OF SCIENTIFIC AND TECHNICAL ENGLISH TO NON-NATIVE SPEAKERS". Reprinted below is the abstract from that article, which is available in full from the Clearinghouse.

Abstract

> "Many of the teachers required to teach scientific and technical English have specialized in literature and feel unqualified for their new task. This paper seeks to demonstrate that their literary studies develop skills in analysis which can, with some conscious adaption, be usefully transferred to the new field. In particular, a student of literature is used to analyzing at the discourse rather than the sentence level."
>
> "This paper discusses some of these skills, presents analyses of passages of both literary and scientific-technical English, and discusses the similarities and differences between the analyses. Finally it suggests what supplement previous training a literature student needs in order to become a competent teacher of scientific and technical English."

INTRODUCING THE THEORY OF EST

For those who wish to gain a theoritical base in EST, the Clearinghouse has available an article by Henry Widdowson which was written for "Le Francais dans le Monde". The article is in English and is entitled "THE DESCRIPTION OF SCIENTIFIC LANGUAGE". Below are some excerpts.

> "...the concepts and procedures of scientific enquiry constitute a secondary cultural system which is independent of primary cultural systems associated with different societies."
>
> "The discourse of scientific instruction...such as appears in textbooks...is very different from the discourse of scientific exposition...such as appears in research papers."
>
> "Scientific exposition is structured according to certain patterns of rhetorical organization which, with some tolerance for individual stylistic variation, imposes a conformity on members of the scientific community no matter what language they happen to use."

This paper provides an orientation in an area where those interested in Intercultural Communications/ESL could break new ground and provide interesting insights.

BOOK REVIEWS

The Clearinghouse has written to various publishers requesting their cooperation, and as responses come-in, EST book reviews will be carried as a regular feature in the Newsletter. Reviews are welcome from the readership. We are especially interested in receiving reaction from the teaching ranks on the usefulness of the various texts for EST now available, and suggestions for publishers to consider in bringing out new texts.

FOREIGN SCIENCE STUDENT PERCEPTIONS OF CLASSROOM LANGUAGE PROBLEMS

Members of the EST Clearinghouse Advisory Committee are currently interviewing foreign science students at Oregon State to gain their perceptions of classroom language problems. From these interviews an evaluative instrument will be prepared which can be administered elsewhere (with a minimum of hassle) for the purpose of collecting data on what foreign science students perceive as their language needs. The results of the research will be the subject of a later issue of the Newsletter. The evaluative instrument will be carried in the next issue of the Newsletter, and the readership is invited to use it and send the results to the Clearinghouse for tabulation.

BIBLIOGRAPHY OF CURRENT CLEARINGHOUSE MATERIALS

The following articles are available from the Clearinghouse. The cost reflects reproduction and mailing charges only. Articles have already come in which we were not able to include in this issue due to deadlines and start up time, so if anyone has a special immediate need for information, write for a complete bibliography. Payment for Clearinghouse services should be by check, made out to EST Clearinghouse. Cost for each item can be found listed with the item.

1973

Lackstrom, John E; Selinker, Larry; and Trimble, Louis. TECHNICAL RHETORICAL PRINCIPALS AND GRAMMATICAL CHOICE. TESOL Quarterly, June, 1973. 22¢

1974

Selinker, Larry, and Trimble, Louis. "FORMAL WRITTEN COMMUNICATION AND ESL" J. of Tech Writing and Comm. Spring 1974. 22¢

__________ and Vrouwn, Robt. "PRESUPPOSITION AND TECHNICAL RHETORIC". English Language Teaching Journal, Oct. 1974. 20¢

Trimble, Louis. "THE USE OF SCIENTIFIC AND TECHNICAL RHETORIC IN TEACHING READING". 1974 LATEFL-T.I.T Conference, Budapest, Hungary. 23¢

1975

Mage, Thomas. "CONTRASTIVE DISCOURSE ANALYSIS: EST AND SST". (SST = Spanish of Sci &Tech) IVth AILA Congress, Stuttgart, West Germany. 27¢

~~S[illegible], [illegible], R.M. Todd, and [illegible] "IMPLICIT RHETORICAL IN[illegible] EST DISCOURSE". IVth AILA Congress, Stuttgart, West Germany. 48¢~~

1976

Selinker, Larry, Trimble, R.M. Todd Trimble; and Trimble, Louis. "PRESUPPOSITIONAL RHETORICAL INFORMATION IN ESL DISCOURSE". Tesol Q. Sep 1976. 21¢

Trimble, R.M. Todd; and Trimble, Louis. LITERARY TRAINING AND THE TEACHING OF SCIENTIFIC AND TECHNICAL ENGLISH TO NON-NATIVE SPEAKERS". FORUM." 54¢

Widdowson, Henry G. "THE DESCRIPTION OF SCIENTIFIC LANGUAGE". Le Francais dans le Monde. 35¢

Also available

Lackstrom, Hohn E.; Selinker, Larry; and Trimble, Louis. "GRAMMAR AND TECHNICAL ENGLISH". English as a Second Language: Current Issues. The Center for Curriculum Development. 1970. 39¢

~~Trimble, [illegible] "[illegible] RHETORIC OF INFORMAT[illegible] ENGLISH" [illegible]~~

CONFERENCES/WORKSHOPS

Of special interest to EST:

TESOL--April 26-May 1, Miami "Discourse Analysis in English for Special Purposes" Joe Darwin Palmer, Workshop #12, Pre Convention

CONFERENCES/WORKSHOPS (Cont.)

TESOL—April 26-May 1, Miami "ESL Techniques in the Language of Science and Technology"
Karl Drobnic, April 29, 4:00 pm, Demonstration.

The video theatre presentations may include some ESL videotapes developed by Jean Greathouse and Patricia Peterson. Subjects include meteorology, medicine and engineering. Check at the Video Theatre.

NAFSA, May 24-7, New Orleans "Teaching Written Scientific and Technical English"
Ann Johns May 26 Workshop

British Council Workshop July 5-August 17, England

"Organizing In-service Courses in English for Special Purposes"
A.P. Cowie Write: Director, Courses Dept. The British Council, 65 Davies St., London, W1Y 2AA.

MAGAZINES/NEWSLETTERS

"ESPEMENA" An interesting magazine describing activity in ESP/EST in North Africa. The Clearinghouse has written to obtain back copies and will announce if and when they arrive. The address in Africa is: ESPEMENA, English Language Services Unit, Faculty of Arts, U. of Khartoum, PO Box 321, Khartoum, Sudan.

ESP/EST Newsletter, Chile. The Clearinghouse has written for copies of this newsletter being published in Chile. Announcement will follow when there is a reply.

SUBSCRIPTION FORM

Please enter my subscription to EST Newsletter. Issues 1 and 2 are free. Issues 3-12, to be published monthly, are $4.[illegible]0. Make checks payable to EST Clearinghouse.

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#2 May, 1977

ENGLISH
for
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A Newsletter sponsored by AID/NAFSA Liaison Committee

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FROM THE EDITOR:

This issue of the Newsletter focuses on some practical aspects of EST. Material has been received from various sources that deals with the nuts and bolts of putting together an EST lesson and presenting it to a class. Much of the material this issue will review comes from ESPMENA, an excellent bulletin from the University of Khartoum. The Clearinghouse is in contact with ESPMENA regarding the best way to make back copies and future issues of the bulletin available in the USA. An announcement regarding arrangements should be forthcoming in next month's issue.

For those attending the NAFSA National in New Orleans, we urge you not to miss Ann Johns' "The Teaching of Academic English for Science and Technology". The advance copy of her presentation received by the Clearinghouse indicates that those attending will come away with plenty of practical advice.

Longman's has sent the Clearinghouse many of their titles in the area of EST. A listing of these titles will be found in this issue and reviews of the texts will be spread through coming issues. We request anyone using one of these titles to send in their opinion of the book's usefulness. The Newsletter will publish user's reviews and the Clearinghouse will use the information to try develop criteria for EST texts from the point of view of the people who must select and then use an EST text. While on the subject of books and Longman's, the company is reportedly readying a book of articles and essays for publication with a title such as English for Special Purposes. It is not expected out for several months yet, however.

The ClearingHouse has been informed that the ESP/EST Newsletter being published in Chile is available by subscribing to the MEXTESOL Journal. The Winter 76 issue of that publication carried an EST article by M.E. Austria entitled "A Note on Technical English Materials: The Place of Formal Grammar in a Cognitive Orientation". There is considerable EST activity in Mexico. A brief report appears further on.

Finally, a note of apology. The volume of mail to the Clearinghouse has changed from a trickle to a stack in the wake of the national announcements carried in various publications. We are working through it systematically, and replies are now going out on a regular basis. If you have written, an answer is forthcoming. Remember that the Newsletter welcomes submissions, and will publish as much and as many as possible.

BEFORE RUSHING IN WHERE ANGELS FEAR...

Very much worth passing on is a portion of the correspondence received from Ernst M. Sinauer, Director of the International Training Institute. He writes:

> "I am beginning to suspect that your effort to inject into ESL teaching an EST component creates more problems than it solves:
>
> 1. It will require substantial retraining of EL teachers, as described in your Newsletter.
>
> 2. If EST is injected into regular, mixed classes it will create problems for students and teachers, over and above the existing great difficulties; and if an effort is made to separate science students from others...I hate to think of the consequences. As a minimum, the EST student would become even more remote from this culture, because of his existing preoccupation with science."

Anyone with further thoughts along these lines, pro or con, is invited to submit them. The Newsletter is to be a forum as well as an information source.

CONCERNING WRITING AND EST

A number of queries have come to the Clearinghouse concerning the teaching of writing in EST. Reprinted below is the section on writing from Part V of the handout for Ann Johns' NAFSA Convention presentation. In Part V she addresses the question "What types of classroom practice might assist the intermediate or advanced student to learn EST?" She then gives suggestions for Reading and vocabulary, Grammar, Writing, and Speaking. The section on Writing reads.

C. Writing

1. Controlled sentence combining:
    a. Combine the following sentences using one of the following qualifiers (therefore, at any rate, in fact). Remember that a semicolon must precede the qualifying statement and a comma must follow it.

    b. Join the following sentences using passive relative clauses:
    EX: Water is polluted. It is unfit to drink.
    Water which is polluted is unfit to drink.

    c. Join the following groups of sentences by using reduced relative clauses:
    A fragile object is dropped on concrete. It breaks.
    A fragile object dropped on concrete breaks.

2. Sentence completion:
    Complete the following sentences as instructed:
    Since the experiment has not yet been conducted, (main clause + to know).
    The technical committee will be appointed (sub. clause + to decide).

3. More advanced exercises;
    a. Rewrite the following passage deleting all unnecessary words or phrases.
    b. Describe one of the following. Diagrams may be used: (dishwasher, micrometer, television set).
    c. The discussion of the diagram shown has been jumbled. Reorder the sentences so that the paragraph is correctly arranged.
    d. Complete the explanation below with appropriate words. Consult the graph (or diagram) for direction.
    e. Compare Table 1 with Table 2.
    f. Summarize the paragraph by answering the questions which follow it.

4. Research and report writing:
    a. Evaluation reports.
    b. Formal reports including: summary, introduction, discussion, conclusions, recommendations.

Consult R.S. Blicq, _Technically Write_, Englewood-Cliffs: Prentice-Hall, 1972.

Ms. Johns' presentation handout, which is available from the Clearinghouse, is in outline form, per above, and also addresses the following questions:

I. What is EST?
II. Is EST universal—culture free?
III. Assuming that there is a scientific and technical English, of what might it consist?
IV. At what stage does the teaching of EST begin?

E[illegible]ESP IN MEXICO

Correspondence from Kamila Knap, Coordi[illegible] of the Foreign Language Teaching Program at the Universidad Autonoma Metropolitana in M[illegible] provides the following information:

"There is a considerable amount of research and activity in the EST/ESP field in Mexico. The Universidad Nacional Autonoma de Mexico has a research and development unit and the Mexican Association of TESOL (or INTESOL) has given ESP workshops. At the Universidad Autonoma Metropolitana, which consists of three campuses, Azcapotzalco, Iztapalapa, and Xochimilco, we are using a course which was basically written at the Xochimilco campus. It is called BEFAS (Beginning English for Academic Studies) and consists of a common core plus supplementary material for Social Sciences, Engineering, Architecture, and Biological Sciences."

Coordinator Knap adds: "...I [am] not at liberty to forward copies of BEFAS."

The Clearinghouse is checking into obtaining a description, copies, or samples of the BEFAS materials and will keep the readership posted. Coordinator Knap also forwarded some copies of the journal EDUTEC, which has an ESP section. We will review EDUTEC in Issue #3.

REVIEW: VIDEOTAPE AND EST

Better Listening Skills, Series 1. Videotape with workbook. Pat Wilcox Peterson and Jean Greathouse. Boulder, Colorado: International Videotape Programs, 1977.

Using videotape to provide science-bound language students with scientific and technical subject matter while allowing the teacher to concentrate on the ESL skills involved in comprehending that subject matter is an idea that has been put into practice by Peterson and Greathouse.

Simulating the university classroom, they have videotaped five mini-lectures on the following subjects: Space Technology (6 min.); Engineering (6 min.); Economics (7 min.); Medicine (1[illegible] min.); and Anthropology (13 min.). The subject matter of each lecture is mature and relevant, and directed toward a university bound student.

The lectures are accompanied by a workbook that leads the student through a series of exercises designed to improve both his listening comprehension and study skills. With the workbook, each lecture provides material for three class hours of language related activities. Each lecture is shown three times. Before each showing, the students are primed with material relevant to that period's learning tasks; during the showing students complete workbook exercises; and following the showing, there are wrap-up and re-enforcement exercises.

The series provides training in critical listening skills and requires the student to deal with thought questions, listening assignments requiring the synthesization of ideas and specific facts, and objective tests. Further information about this series may be obtained from International Videotape Programs; 390 32nd St.; Boulder, Colorado 80303.

ESPMENA

Six back issues of ESPMENA have arrived. ESPMENA is the acronym for English for Special Purposes in the Middle East and North Africa. The bulletin is published at the University of Khartoum under the editorship of James Croft, Phil Skaldon, and John Swales. There is far more material than this Newsletter could review even if we devoted all the remaining issues to the task, so we have decided to review the "Teaching and Learning Materials" sections of the six issues. Even being this selective, we have had to arbitrarily pass by good material.

At the time of publication, there had not been time for an answer to arrive from ESPMENA regarding the Clearinghouse query as to the best way to distribute complete copies of this bulletin in the USA. For those in a rush, the ESPMENA address is supplied elsewhere in this issue. To those who can wait, we expect to have definite word in the next issue.

From ESPMENA Bulletin #1, April, 1975, we are excerpting the following example of exercises designed to teach simple conditionals to science students. The exercise was developed by Phil Skaldon. Many should find it useful and easy to fit into their own teaching.

"A look at the function of Simple Conditionals in Scientific writing shows that two principal uses are a) to make general statements, and b) to illustrate rather abstract propositions. Here is an example of the latter:
"Speed is the ratio of the distance travelled by a moving body to the time taken. For instance, if a lorry travels 200 km in 4 hrs, it has an average speed of 50 k.p.h.
This b) use can be practised in quite a meaningful way by getting the class to produce their own illustrations and examples in conditional form. However, the a) function is not so easy to generate. Even so, here is some work that has greatly interested many of our classes (to the extent that class discussion has at times become rather overheated!)

Read these two sentences:

1. a) If a figure is a square, it has four sides. TRUE/FALSE? WHY?
   b) If a figure has four sides, it is a square. TRUE/FALSE? WHY?

Now read these two; think about them in the same way:

2. a) If a figure has four sides, the sum of its angles equals 360°.
   b) If the sum of the angles of a figure equals 360°, it has four sides.

Now consider:

3. Acetic acid is a weak monobasic acid. So we can also write:
   a) If acid 'x' is acetic acid, it is a weak monobasic acid.
But we cannot write:
   b) If acid 'x' is a weak monobasic acid, it is acetic acid. This is because there are other weak monobasic acids, such as formic acid.

Now you know that:

4. All monobasic acids—and only monobasic acids--have one replaceable hydrogen atom in each molecule. Therefore, we can write:

a) If acid 'x' is monobasic, ______________________

b) If acid 'x' contains one replaceable H atom, ______________________

Now write out these general statements as 'if' sentences. If it is possible, as in 2 & 4, write two sentences. If it is not possible, as in 1 & 3, write only one.

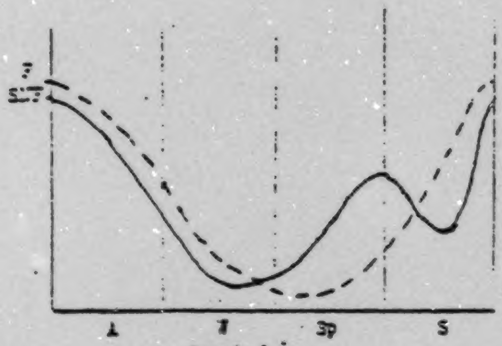
1. Organic acids contain carbon.
2. Mammals have warm blood.
3. Liquids do not have a definite shape.
4. Birds lay eggs.
5. Acids turn litmus red.
6. Scalar quantities have magnitude but not direction.
7. The temperature of a gas increases with pressure."

From ESPMENA Bulletin #2, Autumn 1975, the following "Parallel Paragraphs Based on Graphs" exercise is excerpted. It was developed by Valerie Swales. This could easily be developed into a much larger lesson incorporating the construction of graphs (listening comprehension e.g. teacher reads facts, students fill in graphs), techniques of interpretation (e.g. compare Graphs 1 & 2, contrast.....etc.), and the writing practises as suggested by Ms. Swales.

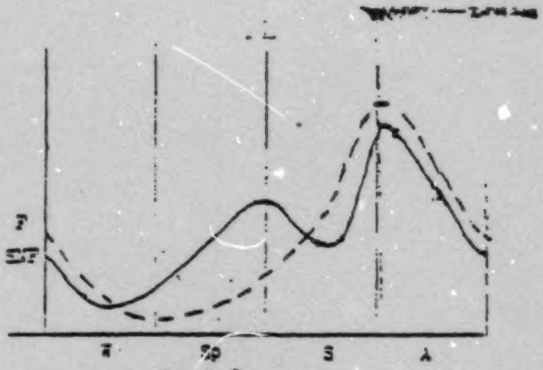
"Read the following passage and study Graph 1:

Seasons of the Year

The composition of milk follows seasonal trends related partly to climate. The fat content is high in the autumn, falls through the winter and spring and rises again during the summer.
The S.N.F. content is also high in the autumn and declines through the winter but rises quickly in the spring and early summer, followed by a decline to a second minimum in late summer.



Graph 1



Graph 2

Exercise 1

Study Graph 2. You will see that this graph begins with W (Winter). Rewrite the passage Seasons of the Year according to the curve in Graph 2.

Exercise 2

Rewrite the passage Seasons of the Year taking the highest and lowest Fat and S.N.F. contents the subjects of the passage.

From ESPMENA Bulletin #3, Winter 1975/76 comes an exercise developed for Second Year, University of Tabriz students by Ian Stewart. A note says that the exercise was not entirely successful. Be that as it may, it is better than not dealing with the problem at all, which is Teaching the Writing of Deductions.

Exercise

Look at this example:-

Minerals containing sodium burn with a yellow flame.
Table salt burns with a yellow flame.

Therefore ....

OR

From this we can conclude that ....

OR

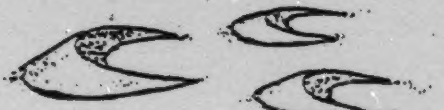
It follows that ....

Write deductions from the following. Use each of the above deductions once only.

1) Coal is found where conditions used to be hot and wet.
   Coal is found in Antarctica.

2) Brachiopoda were an under-water species.
   Brachiopod fossils can be found near [illegible] in S.W. Iran.

3) Barchan dunes form at right angles to the wind with the steep face down-wind.
   In the diagram they lie from North to South.



Space constraints permit excerpting only the first set of exercises based on the following reading comprehension contribution from ESPMENA Bulletin #4, Spring 1976. It's from Donald Adamson of the University of Kuwait.

a) Exercises on Reading Comprehension related to Rhetorical Structure, Faculty of Science, University of Kuwait : Donald Adamson

The most common way of presenting reading passages is probably to have students read a text followed by questions which may be multiple-choice, true/false or open in format. However, one often wonders whether in devising such questions one is focusing sufficiently on the passage as a whole and the way it is put together. In the Science Faculty of Kuwait University, we have been trying out a method which, hopefully, leads students to examine 'total' text and understand how various parts of the text relate to each other. In so doing, we wish to make students use as cues features of grammatical 'cohesion', the devices by which different parts of a text are linked on a grammatical level, including thematization, logical connectives and anaphora.

In applying this technique, we choose a text, paying particular attention to the possibilities which the text offers for abbreviation and summary, and looking closely at those parts of the text which can be deleted without altering the essential course of the argument. These parts may consist of words or phrases within sentences, although in our case we have concentrated rather on sentences or textual units made up of several sentences. We delete these from the text, marking the point of deletion with a capital letter. The text which remains forms the basis of a matching exercise, with the deleted sections given in jumbled list form after the text.

An example of the exercise is as follows:

Read the following passage. The letters A - F stand for sections omitted.

The universe is observable because signals from it reach us and some are able to penetrate our atmosphere.

First, there are waves of visible light together with invisible rays of somewhat longer (infra-red) and somewhat shorter (ultra-violet) wavelengths. (A) The most powerful optical telescope is the 232.6 inch reflector at Mount Semirodriki in the Soviet Union. (B)

Secondly, there are radio waves of much longer wavelengths than light. These can be detected by sensitive radio receivers with special aerial systems. (C)

Other types of radiation from outer space reach the atmosphere. (D) Cosmic rays are detected by Geiger counters, by the minute tracks they leave on photographic plates, and by other means. (E)

X-rays and neutrinos from outer space also reach the earth. (F) Thus, X-ray and neutrino astronomy are becoming increasingly important.

By interpreting the signals that reach us by these various routes, astronomers have formed a remarkably detailed picture of the structure of the universe.

Match the sections which follow with the letters A - F in the passage.

(1) The earth's atmosphere acts as a distorting and only partially transparent curtain, and the erection of telescopes on satellites is beginning to extend optical telescope performance significantly.

(2) These are the radio telescopes. The most well known British one is at Jodrell Bank and it started working in 1957.

(3) The former can be detected by satellites, and the latter by instruments buried in deep mines.

(4) These waves show us the bright astronomical objects and, to make use of them, astronomers have constructed telescopes of great power and precision, together with cameras, spectroscopes, and numerous other instruments.

(5) The origin of cosmic rays is still uncertain.

(6) These include cosmic radiation, which consists of very fast-moving fundamental particles, including protons.

In ESPMENA Bulletin #5, Autumn, 1976, is an abbreviated reading exercise developed by Tony O'Brien, Peter Trumper, and Jeff Jameson of the Language Center University of Azarabadegan, Tabriz. We have excerpted only the part on Titling:

i) Titling

Read the following passage as quickly as possible and then choose a title from the following:-

a) Staining solutions

b) Loffler's Alkaline blue solution

c) The Gram stain

d) Gram positive bacteria

e) The development of the Gram Stain procedure

Write the following phrases against the titles:-
i) too specific ii) not mentioned iii) correct
iv) too general v) mentioned but not important.

(The passage is not given for reasons of space. The matching table element in the second half of this titling exercise seems to us to be a new and potentially fruitful technical development. Ed.)

Finally, from ESPMENA Bulletin #6, Winter 76-77, we excerpt a lengthy exercise developed by Peter Wingard (with an acknowledgement to Dr. Patricia McEldowney).

4) Description using Stem + s (presented to the ESP Conference, Alexandria)

Aim: A great deal of medical and other scientific language consists of description in which the commonest verb form is stem + s (Present Simple, 3rd person singular). Although this form is so common and so simple, the doctors make frequent errors with it, most often by leaving off the s. Probably a major reason why they do this is because it makes no difference to the meaning. But if their English is to be widely acceptable they should form the habit of using stem + s correctly. This exercise simply aims to give them practice in doing so.

Procedure:

1. Explain to the class the aim, as above,

2. Tell them to listen to the passage below and write down all the verbs ending in s as they listen.

3. Read the passage to them, not too slowly. Do not give special emphasis to the verbs or pause at them. They have been underlined just for your later convenience.

An architect plans[1] and designs[2] buildings and supervises[3] their construction. He tries[4] to design a building that satisfies[5] his clients, that is[6] safe, useful and pleasing in appearance, and complies[7] with existing laws and regulations. When an architect receives[8] a commission for a building, he meets[9] the client and discusses[10] the purpose, requirements and cost limitations of the structure. He also determines[11] the client's preference as to style and plan. He studies[12] all the requirements of a building and takes[13] into consideration building codes, zoning laws and other considerations, then he draws up[14] preliminary plans and submits[15] them to the client for his approval. If the client suggests[16] changes, the architect sometimes incorporates[17] them into the final design, which shows[18] the exact dimensions of every portion of the building. The architect then assists[19] his client in selecting a building contractor and helps[20] to draw up the contract between the client and the contracter. As construction proceeds[21], the architect makes[22] periodic inspections to make sure that no-one alters[23] the design and that the contractor uses[24] the materials specified in the contract.

4. Ask the students how many verbs they have written. They should have 24. If most students have not got at least 20, read the passage again.

5. As the students to tell you the verbs in order. Write them in a column in the middle of the blackboard:

plans
designs
supervises
etc.

6. Get them to suggest the Subject of each verb, and write in the Subjects on BB:

An architect	plans	
An architect	designs	
An architect	supervises	

7. Get them to suggest Complements for the first three verbs. Write on BB:

An architect	plans	buildings
An architect	designs	buildings
An architect	supervises	the construction of buildings

8. Now get them to reconstruct the sentence omitting repetition. Show on the BB by crossing out unwanted repetition and inserting and.

An architect	plans	buildings
~~An architect~~	designs	them
~~An architect~~	supervises	their ~~constru~~ construction

The students write out the sentence.

9. Get them to suggest Complements for Verbs tries, satisfies, is, complies. Write on BB. Then get them to reconstruct the sentence. Show on BB. Students write the sentence.

10. Same for receives, meets, discusses, determines (3rd and 4th sentences) Again show that there are different ways of re-writing the sentences e.g. An architect first receives a commission for a building, and meets the client. He discusses the requirements with the client, and determines the clients preferences. (N.B. The reconstruction need not be as long as the original - quite a lot of detail may be left out.)

11. studies, takes, draws up, submits)
12. suggests, incorporates, shows) same method
13. assists, helps, proceeds, makes, alters, uses)

14. Every student should now have a complete written version. Let each student in turn read a sentence from his own paper. In this way, go through the passage about twice, correcting any errors you hear.

15. Rub everything off the BB except the list of 24 verbs. Now see if the students can reconstruct the whole passage orally, without looking at their papers. Let each student say one sentence.

16. When satisfied, set the following (possibly in a separate lesson)

> "The passage we have been working on describes the work of an architect. Now describe the work of your own specialism as a doctor, beginning:
>
> - A physician ....)
> - A gynaecologist ....) or whatever else you are.
> - A anaesthesist ....)

Make sure all the verbs end in s.

The teacher should go round checking as the students write. This work should be completed in about 10 minutes. They need only write 50 to 100 words.

17. Let doctors of several different specialisms read aloud their descriptions. The others should listen carefully, see if they agree with the description of the job, and listen for the verbs to be sure they end in -s, and perhaps write down the verb. After each description, other doctors of that specialism may add points that were omitted.

Peter Wingard
(With acknowledgements to Dr. Patricia
McEldowney of Manchester University
for the thinking behind it)

Note:

The International Congress of Applied Linguistics will meet in Montreal August 21-26. They are planning a section on Languages for Special Purposes. Write: Secretariat of the AILA Congress 1978; c/of: Jacques D. Girard; University of Montreal; Box 6128; Station "A"; Montreal, Quebec; Canada, H3C 3J7.

EST IN THE GRADUATE SCHOOLS

The Clearinghouse has received information about graduate level work going on in EST at three universities. San Jose State expects to graduate a number of TESOL M.A.'s with a concentration in EST this year. Letters have also come in from graduate students doing work in EST at Ohio University and Utah State University. Other schools offering opportunities to do work in EST are invited to let us know and we will get the information out.

EST TEXT BOOKS AVAILABLE FROM LONGMAN

The following EST texts have been received from Longman. We invite anyone using one of these titles to send along comments, pro or con, about the book's usefulness. It would help if users would include a description of the class they are using the book with. Longman's address is: 19 W. 44th St., New York, NY 10036.

ELEMENTARY SCIENTIFIC ENGLISH PRACTICE, G. C. Thornley.

EASIER SCIENTIFIC ENGLISH PRACTICE, G.C. Thornley.

SCIENTIFIC ENGLISH PRACTICE, G.C. Thornley.

PREPARATORY TECHNICAL ENGLISH, (Teacher's Book and Student's Book), G.A. Pittman.

CHEMISTRY, P.A. Ongley.

THE STRUCTURE OF TECHNICAL ENGLISH, A.J. Herbert

A COURSE IN BASIC SCIENTIFIC ENGLISH, J.R. Ewer and G. Latorre.

ENGLISH PRACTICE FOR ENGINEERS, M. Hawkey.

PRACTICE IN MEDICAL ENGLISH, Kenneth and Chuntana Methold.

UNDERSTANDING TECHNICAL ENGLISH 1, K. Methold and D.D. Waters.

ENGLISH FOR ELECTRICAL ENGINEERS, J. McAllister and G. Madama.

UNDERSTANDING TECHNICAL ENGLISH 2, K. Methold and D.D. Waters.

NUCLEUS GENERAL SCIENCE, Martin Bates and Tony Dudley-Evans.

ENGLISH FOR NURSES, David Austin and Tim Crosfield.

ELECTRONICS AND COMMUNICATIONS, G.W. Wells.

CIVIL ENGINEERING, John S. Scott.

A READER IN MECHANICAL ENGINEERING, R. Shalif.

THE ENGLISH WE USE FOR SCIENCE, R.A. Close.

McGraw-Hill Book Company has forwarded:

SCIENCE READINGS, edited by Kenneth Croft and Billy Walker Brown.

Review

We are selecting NUCLEUS GENERAL SCIENCE by Bates and Dudley-Evans for review in this issue because of the nature of many of the queries that have been received. Many feel conscripted into teaching EST courses, mentioning that what little scientific/technical background they have is far in their past. NUCLEUS GENERAL SCIENCE, which comes with a separate Teacher's Notes containing answers, is a book that should satisfy student craving for scientific content. At the same time, it teaches a lot of English in a manner that avoids reducing the teacher to the role of an explicator trying to explicate subject matter he does not understand. Diagrams and illustrations make much of the material self-explanatory, allowing the teacher to concentrate on the English needed to express the concepts and subject matter of the particular units.

There are twelve units to the book, with the following headings: Properties and Shapes; Location; Structure; Measurement 1; Process 1, Function and Ability; Process 2, Actions in Sequence; Measurement 2, Quantity; Process 3, Cause and Effect; Measurement 3, Proportion; Measurement 4, Frequency, Tendency, Probability; Process 4, Method; and Consolidation.

A closer look at Unit 2, Location, shows a useful division of unit headings into sub-categories. This unit on location is divided into four parts: 1)Positions on two dimensions; 2) Positions on three dimensions; 3) Geographical positions; and 4) Some parts of objects and their properties.

Material is introduced with the following type of exercise:

"Look and read:

Picture of a dish	The interior surface of this dish is concave. The exterior surface is convex. The edge is circular.

The introduction in the Teacher's Notes states: "It [the book] is intended for students with some knowledge of English, who need to reactivate this knowledge and apply it to the comprehension of written and spoken discourse." GENERAL SCIENCE can be used as a course in itself or as a companion to several other specific course books in the Nucleus series. The specific Nucleus books are: Engineering, Chemistry, Biology, Geology, Agriculture, Math, Physics, Medicine, and Nursing Science.

BIBLIOGRAPHY OF ADDITIONAL CLEARINGHOUSE MATERIALS

The following articles are available from the Clearinghouse, in addition to those listed in issue #1. There are two changes to be made in the bibliography published in issue #1. "THE RHETORIC OF INFORMATION ENGLISH" by Louis Trimble has been withdrawn. Also, IMPLICIT RHETORICAL INFORMATION IN EST DISCOURSE and PRESUPPOSITIONAL RHETORICAL INFORMATION IN EST DISCOURSE, both by Selinker, Trimble and Trimble, are essentially the same. We will therefore answer requests for either with the second title. The price following each entry below reflects cost of printing and mailing. Payment should be by check, made out to EST Clearinghouse. (Note: we have recently changed reproduction methods, which has held up some early requests.)

Johns, Ann M; "THE TEACHING OF ACADEMIC ENGLISH FOR SCIENCE AND TECHNOLOGY"; NAFSA Convention, New Orleans, May 1977 31c

"ARTICLES, WORKING PAPERS & SPECIMEN MATERIALS ON 'ENGLISH FOR SCIENCE, APPLIED SCIENCE & TECHNOLOGY' HELD BY THE ENGLISH LANGUAGE SERVICING UNIT, UNIVERSITY OF KHARTOUM"; Second Supplement, July 1975, and Third Supplement, July 1976. 26c

Konecni, Evica and Louis Trimble; "SCIENTIFIC AND TECHNICAL RHETORIC, GLOSSARY OF TECHNICAL TERMS", U. of Skopje, Yugoslavia, U. of Washington, Seattle, USA, 1976. 66c

Trimble Louis; "AN APPROACH TO READING SCIENTIFIC AND TECHNICAL ENGLISH"; U. of Washington, Seattle, USA, .36c

Lackstrom, John E; "THE READING COMPREHENSION OF ELLIPTICAL ARGUMENTS IN EST TEXTBOOKS"; Utah State University. 65c

Selinker, Larry, Louis Trimble, and T. Huckin; "AN ANNOTATED BIBLIOGRAPHY OF RESEARCH IN SCIENTIFIC AND TECHNICAL LANGUAGE: The Yugoslav Serbo-Croatian-English Contrastive Project. 28c

We ask that requests for the ESPMENA and EDUTEC materials mentioned elsewhere in this Newsletter be held in abeyance until arrangments can be made with the editors of those publications. A summary of addresses for direct contact appears below.

Gillian Hashim, Secretary
ESPMENA Bulletin
English Language Servicing Unit
Faculty of Arts
University of Khartoum
P.O. Box 321
KHARTOUM, THE SUDAN

Editor, MEXTESOL JOURNAL
Apdo. Postal 6-808
Zona Rosa
Mexico 6, D.F. MEXICO

Editor, EDUTEC
Universidad Autonoma Metripolitana
Boulevard Manuel Avila Camacho #90
Naucalpan, Mexico
Apdo. Postal 325
Mexico 1, D.F. MEXICO

ESL Dept.
Longman's INC.
19 W. 44th St.
New York, NY 10036

Final Note:

Remember that we solicit submissions to the Newsletter by an open invitation to everyone involved in EST. We will print as much as we can, either by abstract, excerpting, or the complete article as space allows, and all contributions will be placed in the Clearinghouse and made available to all.

SUBSCRIPTIONS

This is the last funded issue of the Newsletter. We must cut our mailing list down to paid subscribers for issues 3-12. Those wishing an institutional subscription that requires billing may so indicate by writing "Please Bill" on the subscription form below. Please include the billing number if such is necessary at your institution.

SUBSCRIPTION FORM

Please enter my subscription to EST Newsletter. Issues 1 and 2 are free. Issues 3-12, to be published monthly, are $4.00. Make checks payable to EST Clearinghouse.

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#3 ENGLISH for SCIENCE and TECHNOLOGY June, 1977

A Newsletter sponsored by AID/NAFSA Liaison Committee

Karl Drobnic, Editor
ELI, AdS A100
Oregon State University
Corvallis, Oregon 97331

Ed. note: Joan Meinhoff, formerly an ESL instructor at the University of Kuwait and now foreign student advisor at Eastern Oregon State College, returned to the classroom to do the research in the following article.

"The Language of Science and the Freshman Foreign Student"

Joan Meinhoff, Eastern Oregon State College

At Eastern Oregon State College a progressive system offers science modules to non-science majors. The three-week long, daily intensive classes give students an overview of a specific science area (e.g. developmental biology, ecology, plants and shrubs, etc.) while also meeting course requirements in natural sciences.

Recently I had the experience of auditing one of these science mods with a group of seven Micronesian students. I enrolled in the class strictly for my own personal pleasure; however, the Micronesians were there for credit. Because of my strong background in ESL, I soon became aware of words and phrases which could cause special problems for foreign students. It was even possible for me to categorize the vocabulary which seemed to cause problems. From that background, the following samples of vocabulary items and the problems surrounding them were generated.

Categories of Words Used in the Ecology Module:

Category I: Technical words which are science-specific and are, therefore, new to both American and foreign students alike.'

Examples:		
	eutrophication	ectotherm
	estivation	endotherm
	trophic	

American students may have an edge by knowing root parts like "therm" and by being able to guess at meanings of words like "trophic" through contextual clues in readings. When studying for an exam, the Micronesians were able to carefully separate "ectotherm" from "endotherm" by pointing out that the one with the "c" in it meant "cold blooded" while the other word "endotherm" must be the word which meant "warm blooded". This technique was undoubtedly used by some American students as well in trying to memorize such technical words for an exam. Other words such as "estivation" gave the students more trouble, but it seems that with guidance and suggestions in memory techniques, easier ways to learn these types of words could be found. It is possible that a mnemonic keyword method similar to that used by R. Atkinson and M. Raugh in teaching Russian vocabulary (ERIC EDO 96841) could be adapted for use with foreign students from various backgrounds learning the same vocabulary. Similar memory techiques are also mentioned in The Memory Book by H. Lorayne and J. Lucas, and they could possibly be applied to EST.

Category II. Science-specific words which have roots which are identifiable to native English speakers, but not necessarily known to foreign students.

Examples:		
	herbivore	biomass
	carnivore	dormant

If these roots are not already known to American students, they are readily picked up because of their commonality with other already known words. Certainly an American student can recognize that "herbivore" has something to do with plants. Even if he has never seen the word before, he can relate it to "herbs" or at least to "Herbal Essence Shampoo". And "carnivore" has some connection with meat or flesh if the student knows what "chile con carne" is or has seen "Carnal Knowledge". He may even know the word "carnivorous". Once an American student learns that an "herbivore" eats plants, he can easily recognize that a "carnivore" eats meat and guess that an "omnivore" eats almost anything. Through this process, the American student has also picked up the root "vore" and can apply it in future situations. For myself, I was certainly happy to possess the knowledge of numerous root words in order to understand the new scientific words needed for success in the course.

"Dormant" was another word which Micronesian students did not previously know. However, by relating it to "dorm", as in "dormitory" (where most of them slept), they quickly grasped the idea of rest or sleep. The link from "dorm" meaning "sleep" to that of its meaning "inactive" was easily grasped.

Category III. Words which are not science-specific, are well known by Americans, but because of low frequency of use are seldom known by foreign students.

Examples:		
	fluff	pant

flutter squat
shiver sleek down hair

To help students learn these words, I demonstrated the actions called for. However, words in this category seemed to be the most easily forgotten because they were the words least necessary in coping with daily problems. Somehow, they did not offer even as much incentive to be put to memory as did the more sophisticated science-specific words.

The Micronesian words for shiver seem to cover both "chills and fever" type shivering and the kind of shivering one feels after a rain storm. The first association seemed to be related to sickness. (It must be kept in mind that there are several languages used in Micronesia, and word associations may be different for students from different parts of the area.)

Category IV. Words that can be unique to English and may have no equivalent forms in the foreign language.
Examples: pack school
herd litter
flock

Note that these words all mean "group" and pertain to a kind or kinds of animals. The foreign language may only have one word to cover all these terms.

The Micronesians had used the words "flock" and "herd" before in high school reading. When we determined that all of these words referred to different animal groups, I asked the students which kind of group they thought "school" referred to. The inevitable answer was, of course, "students".

Category V. Sophisticated synonyms for easier words.
Examples: mortality.......death
terrestrial.....land
nocturnal.......night
dispersion......distribution

Again, words like these are either familiar or readily identified by Americans, especially by those who have studied foreign languages.

For foreign students there was a high interest in these words. They were picked up readily and were, in many cases, integrated into the students' discussions of the lessons. Perhaps these words had been used in other classes or actually seemed useful.

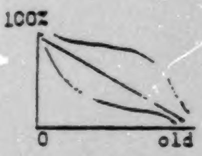
Category VI. Less common animal and plant names.
Examples: herons salamanders
egrets camelions
tadpoles algae

These are usually familiar to American students, but again, because of infrequency of use, they are not often known to foreign students.

These were the hardest words to explain because they referred to specific types of animals or plants. I am not certain that the students knew exactly which animals the words designated, but they did know generally. Pictures would have been helpful as many Micronesian languages do not presently have dictionaries, and students must therefore learn foreign words completely through foreign explanations.

Category VII. Symbols, graphs, formulas, and equations.
Examples: symbols

graphs: % surviving



formulas: $r = b - d$
$C_6 H_{12} O_6$

equations: $\text{assimilation efficiency} = \dfrac{\text{biomass assimilated}}{\text{biomass eaten}}$

$\text{absolute rate of growth} = rN\dfrac{K - N}{K}$

American students are generally somewhat familiar with these, but, depending on each foreign student's background, some confusion can result.

The purpose of this paper is not to suggest that science teachers change their way of teaching or the words they use. It is important, however, that they realize problem areas encountered by both foreign students and other freshman students with low reading ability. The difficulties mentioned in categories 1, 2, and 5 overlap for both foreign students and low ability readers. The confusion caused by category 7 is likewise a problem for some American students as well as some foreign students.

In concluding this paper, I would advocate a closer working relationship between subject matter teachers and ESL teachers. Foreign students often complain that the English they study in ESL classes is not relevant to their studies. As an experiment, the ESL teacher could attend a science class with a group of his foreign students who are taking the class. He could take notes which actually become a vital part of his lesson plan. With the ideas already taught by the science teacher, the ESL instructor could focus on vocabulary, providing an outlet whereby foreign students could talk about and use the new words and concepts which they are getting in the lecture courses. The ratio of ESL classes could be about one hour for every two hours of science or whatever seems appropriate to the situation. Surely the science teacher should be happy to have this kind of support. His foreign students would learn the lessons and concepts well and would have a chance to explore ideas in English. What is more, the ESL teacher would be working with words and concepts which his students actually need to succeed.

Ed. note: Reprinted below is the abstract of Barbara Wiggin's master's thesis, recently completed at the East-West Center in Hawaii. We expect the thesis to be available through the Clearinghouse in late July or early August, but are running the abstract now in order to get an estimate of how many copies to have made. We project a cost range of $2-$5 for reproduction and postage. Those who are definitely interested are asked to let us know by July 15.

SYNTAX AND DISCOURSE ANALYSIS: AN APPROACH TO THE TEACHING OF SCIENTIFIC ENGLISH

Barbara Wiggin, University of Hawaii

Abstract

Scientific English is of interest to ESL teachers and materials developers as an important variety of written English. The myriad approaches to its study in an ESL context have included vocabulary exercises, translation, and grammar drills on structures most commonly found in scientific English prose. The problem with these approaches is that they have not considered scientific prose contextually and have thus not been productive of a cogent pedagogical theory based on the discourse structure of scientific English.

Larry Selinker, in attempting to teach scientific English to non-native English-speaking engineers, discovered that traditional approaches were ineffectual. The students could not adjust to the specific demands of the syntax of scientific prose. They had not been taught that the verbal forms of scientific English often contain specific information about discourse function. An example of this would be the use of the present perfect as in "Brown and Smith have reported...", which indicates a discussion of past research, or of the past tense passive as in "Pentobarbitalized dogs were given 53% glucose IP," which indicates a discussion of experimental processes.

Intensive study of abstracts from the Proceedings of the American Society for Experimental Biology revealed that the simple present, past, and present perfect tenses carried significant discourse information. Modals, the passive voice, "ing", "ed" and derived nominals were also important to discourse analysis.

A test of scientific English, using native non-scientists and scientists and non-native scientists tended to support the hypothesis that an effective reading of scientific English prose requires a knowledge of the discourse function of verbal elements.

Materials were developed to test the usefulness of the discourse analysis theory in the teaching of scientific English reading. Passages from Plant Breeding Abstracts were chosen and analysed according to verbal element and discourse function. The two students who participated in the project made and recorded generalizations about each verbal element presented from the texts. It was hoped that the material would teach them the functions of specific elements as well as inculcate a sensitivity to verb form.

BOOK REVIEW

A substantial number of the teachers contacting the Clearinghouse have mentioned being involved in teaching engineers. Among the "EST Books Available From Longman" section of Issue 2 were listed CIVIL ENGINEERING and A READER IN MECHANICAL ENGINEERING, both readers, ENGLISH FOR ELECTRICAL ENGINEERS, and ENGLISH PRACTICE FOR ENGINEERS. This last title, by M. Hawkey, is the subject of the following review.

Because this is a very teachable text, going far beyond the "reader-vocabulary list" format that is too common in EST engineering texts, two drawbacks should be pointed out to teachers using this book. In the unit on report writing, the student is instructed that in reporting an experiment he should use the past tense because the experiment is already completed.

There is ample evidence in the research of EST linguists that scientific report writing uses a considerable variety of tense. The student who couches his reports in past tense will violate a number of important conventions in EST writing, and it is important to the future of the ESL student that his language training make him aware of this fact.

The second serious drawback of this text lies in omission. There is a heavy emphasis in the structure sections on the passive voice. But I found no mention of the stative forms, which are so often misunderstood and mistakenly used by the foreign science student. Confusion of the stative and passive leads the student into errors such as converting, "Protein molecules are located throughout the solution" to "Protein molecules are locating throughout the solution" and other misuses of the passive as well as hindering reading comprehension.

Units contained in the text include report writing, planning, purpose, means, conditions, result, description, and time words. In addition, there are three tests placed at the back of the book to accompany the generous number of exercises contained in each unit.

EST METHODS AND TECHNIQUES

Ted Plaister informs the Clearinghouse of TEACHING ENGLISH FOR SCIENCE AND TECHNOLOGY, Jack C. Richards (ed.). It is available from SEAMEO Regional English Language Centre, 30 Orange Grove Road, Singapore 10 ($6.50).

It should be noted that there has been considerable EST activity in Southeast Asia. A number of EST articles can be found in the RELC Journal as well as in the publication mentioned above.

BEFORE RUSHING IN...

Last month we published the comments of Ernst Sinauer on some drawbacks of EST. This month we reprint a small section of an eight page article in ELI Monthly, No. 19, April 77, a publication of the English Language Institute, University of Petroleum and Minerals, Dhahran, Saudi Arabia. The ELI at UPM is actively developing an EST program. (Check the Clearinghouse bibliography of this issue for this and other ELI Monthly articles describing their EST program.)

Excerpt from

A SELECTION OF LANGUAGE

Michael J. Collins, U. of Petroleum and Minerals

The second type of selection put forward as appropriate for our situation is the 'scientific' type. That is a selection based directly and exclusively on the language of the lectures and textbooks of the students' courses in scientific and technical subjects. There are various reasons why this in not a practical proposition. One is the scientific terminology itself. Surely this is best taught in context by the subject teacher himself. When I was in school it was always taken for granted that the teaching of the terminology appropriate to that subject was part and parcel of teaching the subject. I first heard of the lines of latitude and longitude from my geography teacher, not my English teacher. The geography teacher also considered it his duty to check on our store of technical terms. "Now, what do we call this, Collins? Wrong again. Latitude!" etc. The teacher who thinks that he is not a language teacher deceives himself. That old cliche about us all being language teachers is absolutely right as far as specialist terminology is concerned. But what about outside of that specialist terminology? There remains in technical language a certain amount of 'general' language used in special senses, e.g. 'product' in math courses contrasts with "product" in economics. There also remains a great deal of just plain "general" language, used by scientists in exactly or very nearly the same way as the layman. Moreover, in explaining or illustrating a scientific term or concept, science teachers make frequent use of analogy with simple, non-technical, everyday events. Definition is not explanation. "Explanation involves patient simplification and use of example--for the layman, let alone the non-native speaker...

...Students of science do not need only to be able to read textbooks. I doubt if the textbooks are as important for their technical education as are the classes, labs, workshops, and contact with their instructors. The necessity for clear explanation, involving example, analogy, etc. is one of the reasons why science lectures contain a large helping of 'general' non-specialist language. My own investigations made it clear to me that scientists do not talk like the popular idea of scientists all the time. In fact, to summarize my impression of a typical science lecture, I would say that the smallest component of the lexis is the quota of purely scientific or specialist terms. There seem to be remarkably few of these. Mathematics seems to have a larger share than most subjects. Then a larger component of the lexis is the 'shared' vocabulary i.e. 'general' words used in a very precise specialist sense within the context of the lecture e.g. factor, potential, apply, energy, observe, reciprocal, critical. (Some items become different parts of speech in scientific English from what they are in general English e.g. integral, reciprocal.) This second category shades into the largest component of all—the purely 'general' or non-technical language used by the scientist exactly or pretty nearly as the layman would use it, e.g. effective, step, way, contain, become, involve, though even this component certain kinds of items do tend to recur.

PLANNING EST PROGRAMS

For those embroiled in setting up EST programs, or EST components to augment existing ESL programs, the Clearinghouse has received two publications from the University of Kuwait that come complete with program objectives, placement information, and course descriptions of EST programs there. From Alan Waters we received ENGLISH LANGUAGE PROGRAMME, FACULTY OF SCIENCE, UNIVERSITY OF KUWAIT. From David Blackie we have A GUIDE TO THE ENGLISH LANGUAGE PROGRAMME IN THE COLLEGE OF ENGINEERING, UNIVERSITY OF KUWAIT. Both can make a course designer's job easier, and are available through the Clearinghouse.

EST NEWS FROM MEXICO

The following two items are reprinted from the March-April 1977 issue of MEXTESOL NEWSLETTER.

ESP SEMINAR

A Latin American Seminar on the Teaching of English for Specific Purposes was held in Columbia from the 17th to 22nd of April. The seminar was attended by delegations of ESP specialists from all over Latin America...A full report will appear in the next issue of the MEXTESOL Newsletter.

FIRST ANNUAL MEXTESOL FORUM: ESP

Plans are in hand to hold a Forum devoted to aspects of English for Special Purposes teaching. The First Annual MEXTESOL Forum will take place at the Universidad de las Americas in Puebla. Tentative dates have been set for July 9 and 10. Experts in ESP from England, Mexico, and the USA will speak.

BOOK REVIEWS FROM OXFORD UNIVERSITY PRESS

Oxford University Press has forwarded comments on some of their EST texts. Reprinted below are comments on ENGLISH IN PHYSICAL SCIENCE by Allen and Widdowson.

"An excellent blend of linguistic and technical information relating to English. The text promises to go a long way toward solving the language problems of non-native speakers studying in scientific and technical fields."

Paul J. Angelis, Texas A & M

BIBLIOGRAPHY OF ADDITIONAL CLEARINGHOUSE MATERIALS

The following articles are newly available from the Clearinghouse. All articles listed in Issues 1 and 2 are also still available except for the two exceptions noted in Issue 2. The price following each entry below reflects the cost of printing and mailing. No profit on any article accrues to the EST Clearinghouse. Please make checks payable to EST Clearinghouse.

Adamson, Donald, Shelley Vance and Alan Waters; ENGLISH LANGUAGE PROGRAM; FACULTY OF SCIENCE, UNIVERSITY OF KUWAIT; April 1977. 40c

Blackie, David (editor); A GUIDE TO THE ENGLISH LANGUAGE PROGRAMME IN THE COLLEGE OF ENGINEERING, UNIVERSITY OF KUWAIT; Nov. 76. 76c

Collins, Michael J.; A SELECTION OF LANGUAGE; ELI Monthly, UPM, Dhahran, Saudi Arabia; No. 19 April 77. 33c

Johns, Ann M.; BIBLIOGRAPHY: ENGLISH FOR SPECIAL PURPOSES; 83 items. 28 c

Jordan, R.R. and R. Mackay; A SURVEY OF THE SPOKEN ENGLISH PROBLEMS OF OVERSEAS POSTGRADUATE STUDENTS AT THE UNIVERSITIES OF MANCHESTER AND NEWCASTLE UPON TYNE; J. of the Institutes of Educ. of the Universities of Newcastle upon Tyne and Durham; Vol 25, #125, Nov 73. 33c

Mackay, Ronald; ENGLISH FOR SPECIAL PURPOSES: ENGLISH AND THE ENVIRONMENT; Bulletin Pedagogique, Fevrier 73, No. 24, Paris. 33c

Mackay, Ronald; TEACHING THE INFORMATION GATHERING SKILLS; Relc Journal Vol V, No. 2, Dec 74, Singapore. 40c

Mackay, Ronald; CONCORDIA UNIVERSITY TESL CENTRE GRADUATE SUMMER PROGRAM 1977—ENGLISH FOR SPECIFIC PURPOSES. 26 c.

Mackay, Ronald and Alan Mountford; PEDAGOGIC ALTERNATIVES TO "EXPLICATION DE TEXTE" AS A PROCEDURE FOR TEACHING READING COMPREHENSION WITH SPECIAL REFERENCE TO ENGLISH FOR SCIENCE AND TECHNOLOGY; Bulletin Pedagogique, No. 44, Oct 76. 50c

Mackay, Ronald and Alan Mountford; A PROGRAMME IN ENGLISH FOR POSTGRADUATE STUDENTS IN THE FACULTIES OF SCIENCE, APPLIED SCIENCES AND AGRICULTURE IN THE UNIVERSITY OF NEWCASTLE UPON TYNE; oration of ASLA, Stockholm, 27th-30th April 72. 52c

Mackay, Ronald and Alan Mountford; READING FOR INFORMATION. 66c

Meinhoff, Joan; THE LANGUAGE OF SCIENCE AND THE FRESHMAN FOREIGN STUDENT; EST Newsletter No. 3, June 77. 31c

Project Team; ENGLISH FOR SCIENCE REPORT; ELI Monthly, UPM, Dhahran, Saudi Arabia No. 19 April 77. 47c

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MORE BOOK REVIEWS FROM OXFORD UNIVERSITY PRESS

Other comments forwarded by Oxford University Press about their EST texts include the following:

Glenndinning: ENGLISH IN FOCUS--ENGINEERING

Both this text and English in Workshop Practice appear to be excellent.
Ann Johns, San Diego State

Glendinning: ENGLISH IN MECHANICAL ENGINEERING

Exercises are simple and clear; grammatical structures seem to be chosen on the basis of their occurence in scientific writing.
Joseph Bennett, Sch. for International Trng.

FROM THE EDITOR:

The EST Clearinghouse and Newsletter project was conceived of originally as a way for US ESL instructors to find out what has been happening in the rapidly growing area of EST. In the three months since its inception, however, the project has received responses from 12 countries outside the US and learned of a substantial amount of activity worldwide. We continue to welcome this international response and hope that our US readership will take advantage of the considerable amount of EST work that has been done outside our borders. It is an area where the rest of the world has much to teach us.

In line with the above, arrangements are being made with Ron Mackay of the TESL Centre at Concordia University in Montreal to produce a Canadian version of this Newsletter in November. There will be further announcements about this effort as plans become more definite.

ESPMENA replies to the Clearinghouse that its editors are on holiday. Therefore, a reply to the Clearinhousee query reqarding the best way for US residents to receive ESPMENA has not been made as of press time.

Supplies of Issue 1 are exhausted. Some #2's remain, available by request.

Finally, the Newsletter becomes available by subscription only with this issue. We repeat what we have said before: Funding provided for the first two issues only. At present subscriptions are still coming in and the Newsletter is healthy. However, more subscriptions will mean the ability to publish a larger Newsletter, so if you know anyone interested, pass the word along.

Remember that the Newseetter welcomes submissions from anyone involved in EST. It is our policy to publish as much relevant material as space allows.

SUBSCRIPTION FORM

Please enter my subscription to EST Newsletter. Issues 3-12, to be published monthly, are $4.00. Send a free copy of Issue 2 if any are still available. Make checks payable to EST Clearinghouse.

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EST Clearinghouse
ELI AdS A100
Oregon State University
Corvallis, Oregon 97331

#4 July, 1977

ENGLISH
for
SCIENCE and TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liaison Committee

Karl Drobnic, Editor
ELI AdS A100
Oregon State University
Corvallis, Oregon 97331

Ed. note: Dr. Jerome C. Ford has forwarded a write-up of the notes he used for a series of EST lectures given at the Ecole Normale Superieure at Bamako, Mali in November, 1974. The five parts of the write-up are 1) "The Language"; 2) "The Structure and Process"; 3) "The Knowledge"; 4)"The Teaching"; and 5) "Preparatory Courses for Teaching Technical English". Part 4 is reprinted below. The complete write-up is available from the Clearinghouse.

WHAT TECHNICAL ENGLISH IS ABOUT

Jerome C. Ford, Georgetown University

IV The Teaching

The teacher of technical English must be qualified both in the use of the English language and in knowledge of technical fields. There are three means to arrive at this same end in forming a person to teach technical English. We may begin with a teacher who has good fluency in English and teach him technical fields; we may begin with a non-English speaking professional in a field and teach him English; or we may begin with a native English-speaking professional in technical areas and teach him how to teach.

To begin with a native English speaker or a non-native who is fluent in English puts us well on the way. Yet, if the individual is a professional in one field, either his knowledge of other areas may be insufficient or he will not wish to teach because his professional job is higher paid. The most knowledgeable teachers of technical English are professors who work part-time in a specific field and part-time teaching. Yet they are usually not aware of particular language problems facing non-native speakers.

The best idea seems to begin with a language teacher who is sensitive to linguistic problems of technical English and to teach him technical areas. His own technical preparation must come from taking academic courses and doing wide reading. It is also quite beneficial if the teacher is bilingual in a major language that has a large body of technical terms and is familiar with technical terms in that language (French, Japanese, Spanish, German). Then he may help those students who already have some technical knowledge in the other language, and guide them through terminological equivalents and "faux amis" so that they can translate manuals and not confuse near equivalents with strict ones.

We must recognize two goals of learning technical English. The first is to be able to understand and use technical English. The second is to be able to translate technical English into another language. This translation is quite often hindered by the absence of equivalents in the second language, but even though names of objects may not be found in the other language, descriptions can be given once the nature and function of the technical term is understood. The Japanese have had much success in rewriting technical English manuals in Japanese.

Let us attempt a list of the things a teacher of technical English should know:

1) He should have a basic knowledge of terminology.

When he teaches technical jargon he must attempt to furnish a composite picture of the precise meaning and use of every term. The best way to do this is to ask yourself these questions for every term: what, where, who, why, when, how. What does it mean, where is it found, who uses it, why (the intention), when and how (under what conditions). Not all of the questions may seem appropriate, but attempting to find answers for all will provide a composite picture of the term. Understanding the term derives from this

2) The teacher needs an understanding of fundamental precepts, concepts and mood of the fields and must be able to explain these to the students.

This entails defining the system of thought in the field, its development and principle concerns, units of measure, and research methods. The teacher must be able to fill gaps in students' understanding when questions arise.

3) The teacher must have a sensitivity to the complexity of structure and the stylistic arrangement of words in written technical English, must be able to explain these to his students, and must be able to teach the students how to duplicate them.

In short, the teacher must be able to teach his students to both read and write technical English. This involves much grammatical analysis. Too little research of any value to students has yet been done in this area. Emphasis on outlining, organizing material, and writing bibliographies comes in here. Again, too little emphasis is currently put on the organization of paragraphs and the patterns of exposition involving how ideas are interrelated and presented. The teacher should be attuned to logical versus rhetorical principles as well as the process of identify-define-classify and the cause-effect relation in writing. These are various ways of presenting and interpreting information.

4) The teacher should be able to teach students how to interpret and create charts, diagrams and schemas which are graphic-visual presentations of statistics or concepts.

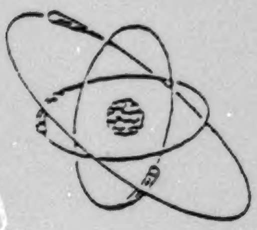
The students should learn how to reduce quantities of information to visible descriptive summaries in chart or diagram form. This includes everything from progress-development charts to component part sketches to blueprints to schematic maps.

5) Lastly, the teacher may desire to develop skills and etiquette for making formal presentations at professional meetings.

This involves selecting and organizing materials for oral and visual presentation within a limited time span, some public speaking, practice in fielding questions and an acquaintance with traditions and atmospheres of professional conferences. Such training will, of course, be necessary who will be making public appearances.

(end of Section IV)

Michael Reymers, Director of Language Services International, has forwarded six of a series of lessons his organization has developed for teaching EST in their Mideast programs. Reprinted below is a lesson on the atom. The other lessons are on "Electricity and Resistance", Shafts and Cams", "Bearings", "The Electric Drill", and "Electromagnets". The lessons are available from the Clearinghouse. Further information may be obtained by contacting Mr. Reymers at the address given in a later section of the Newsletter.



LESSON ONE

The Atom

That's a drawing of an atom. Atoms are composed of protons, neutrons, and electrons. Protons carry a positive electric charge. Neutrons are uncharged, or neutral. Protons and neutrons together make up the nucleus of an atom. The electrons, which carry a negative charge, fly around the nucleus in orbits.

(1) A. What's that?
B. It's a drawing of an atom.

(2) A. What are atoms composed of?
B. They're composed of protons, neutrons, and electrons.

(3) A. What kind of charge do protons have?
B. They have a positive charge. They're positively charged.

(4) A. How about neutrons?
B. Neutrons don't have any charge.

(5) A. What is the nucleus of an atom made up of? What's the nucleus of an atom composed of?
B. It's made up of protons and neutrons.

(6) A. What kind of charge do electrons have?
B. They're negatively charged.

(7) A. What do electrons do?
B. They fly around the nucleus.

(End of Lesson One)

Reprinted below is the abstract from a 6,000 word paper on cognitive variables in EST programs that was prepared by Michael P. Doherty at the University of Kuwait. The paper includes a 37 item bibliography and is a thoroughly documented piece of research. It is available through the Clearinghouse.

AN INVESTIGATION INTO THE COGNITIVE VARIABLE IN EST PROGRAMMES

Michael P. Doherty, University of Kuwait

ABSTRACT

The issue concerning the inseparability of scientific concepts and the linguistic data which represents them is examined in the light of current views on (i) the second language learning process and (ii) the aims and methodology of science education. It is argued that the influence of language and cognition are mutual and, with equal authoritative support, that the implications of the creativity aspect of linguistic competence must have parallel implications for cognition: one cannot import the science as expressed in L_x until one has a competence in that language. The level of that competence can be ascertained. Some implications of these well-documented suggestions for the EST area of 'applied linguistics' are proposed and illustrated.

NEWS FROM CHILE

An earlier announcement in the Newsletter was in error. The EST/ESP Chile Newsletter is not available through MEXTESOL. Anyone interested in obtaining copies should write directly to the permanent secretary:

Ms. Fresia Perez
Faculty of Chemical Sciences
University- of Chile
Casilla 233
Santiago, Chile

The EST/ESP Chile Newsletter is issued twice a year, March and September. There are three issues to date. A fourth is due out in September.

BEFORE RUSHING IN...

Some feel that EST should establish a pedagogy of its own. Others argue that the job of the language teacher is language; science and technology are outside their concerns. In the following article, Ernst Sinauer of the International Training Institute in Washington, DC argues for the modification of existing EL programs along some well-defined lines.

EST - ROSE GARDEN OR BLIND ALLEY

Ernst Sinauer, International Training Institute

"Better command of English is essential for all foreign students." What could be more obvious? Yet, does it also apply to Canadians, Australians, Ghanaians, and to others whose spoken and written English is excellent? Should it perhaps read "for all students, including Americans"? And what about the opposite, teaching specialized English for Science and Technology (EST) to certain foreign students?

There is little doubt that American faculties in all fields are often displeased with foreign students because of unusual problems. Language is a handy weapon, no matter what the deficiencies may be; analysis of the real problems is much more troublesome. Off the record there may emerge complaints having little or nothing to do with EFL[1], but it is likely to remain the traditional scapegoat.

Most foreign students, including those who have passed TOEFL and comply with all other linguistic and admission requirements, encounter considerable obstacles. A substantial proportion of outright failure occurs particularly during the first two semesters, in part by withdrawal and in part by expulsion due to academic failure. Even among successful students, many need additional time for completing degree requirements. One mid-East country with sizeable numbers in the U.S. assumes that it takes one extra year for an undergraduate degree after completion of EFL.

There is good reason for skirting language problems in these paragraphs; students have fulfilled EFL requirements for many years by passing TOEFL, which replaced earlier tests (ALIGU, Michigan, etc.) after exhaustive research and testing under carefully controlled conditions everywhere. If failure occurs only in certain directions, such as science and technology, there would be a good case for replacing current EFL teaching and testing, but there is no known evidence to this effect. On the contrary, the only well-established program in a particular subject area is based on a different assumption, namely, the need for remedying a specific deficiency at home: Over 20 years ago American economics faculties noted that foreign graduate students were deficient in quantitative analysis. Thus, the Economics Institute (now at the University of Colorado) has for many years combined up to 11 weeks of advanced EFL, if needed, with some 5 weeks of statistics, introduction to quantitative analysis, and other such subjects, to place foreign students on a par with American graduate students of economics. Those without an EL problem attend only the economics background classes.

Do foreign undergraduate and graduate students in science and technology have comparable deficiencies? Comparing incoming foreign undergraduates with American high school graduates applying for college entrance should provide fairly simple answers. How many and what kind of science courses, mathematics, etc. are required for college entrance? If foreign students have substantial deficiencies, EFL or EST cannot be expected to overcome them. The problem is identical for advacned or graduate students, but may be more difficult to analyze because admission requirements of graduate schools vary so much that comparisons with education abroad are not easily made. The fact remains that academic deficiencies of foreign students cannot be blamed on language instruction.

Next there is the "transition" problem: Students coming from all foreign education systems and cultures, regardless of their language, must bridge a wide gulf, largely because their learning process between ages 6 and 18 has differed from the 12 years of universal education in the U.S. This has little or nothing to do with language teaching; Anglophone Africans or Canadians (yes, they also make difficult adjustments) are essentially in the same position as Francophone Africans or Canadians after learning English. Anyone doubting these assertions should examine elementary and secondary education here and abroad. Those who think it is just a matter of a brief orientation or a workshop concerning the mechanics of registration credit hours, studying, examinations, and other related matters are equally mistaken. Making the transition to higher education in the U.S. is difficult for all foreign students, and especially for those from Asia in general, Japan in particular, the traditional Arab countries, and countries behind the Iron Curtain. Detailed analysis of these special cultural and sometimes political problems exceeds the scope of this article.

Apart from subject matter deficiencies and the transition problem, what can EFL and EST do to help foreign students beyond passing entrance requirements? Let us assume here that it takes 8 months to go from zero to the college admission level, and let us agree that there are special vocabularies and other peculiarities in science and technology. Yet it appears neither desirable nor necessary to segregate prospective science and technology students. These two recommendations appear to be good alternatives:

1) EFL at all levels should contain elements of EST, notably in terms of vocabulary. Few foreign students become English literature majors; instead, they will be broadly distributed over the entire college spectrum.

2) The last month of EFL (out of an

assumed 8 month EFL period, roughly between 450 and 500 TOEFL) could be separate for EST students. Previously they learn words, phrases, sentences, and hopefully paragraphs, but introduction of new ideas, difficult to grasp, should await the top level of EFL.

Adoption of (1) would necessitate the broadening of current EFL texts through inclusion of new readings and vocabularies. For (2) we would need to train some EFL teachers or else seek out those with a science or technology background. Whatever the difficulties of carrying out these two recommendations, they do not approach the problem of pursuing a full 8 month EST course. Particularly the second recommendation matches the progress of American students who initially learn English for years and then before or just after college entrance or sometimes later, there are subjects like Business, Technical, or even Remedial English.

Both recommendations have the major advantage of not setting science and technology students apart before reaching college. We may also ask whether science and technology in general is so divorced from the environment that foreign students need not understand this society before reaching college and should be separated from those in other fields throughout their stay in the U.S. Indeed, if the answer were in the affirmative, why should they come here at all? Science and technology subjects might as well be taught at home or in a few international locations.

Such an approach, hardly considered in the U.S.[2], is practiced particularly in Israel and in the Netherlands. Foreign students are placed in separate classes throughout their stay, up to an M.A. or M.S. equivalent in the Netherlands and up to advanced degrees in Israel. All 6 public and private universities in the Netherlands formed a consortium, teaching in English and French. Medicine (6 years) and Agricultural Engineering (4 years) has been offered in English in Israel. It should be added that there would be few foreign students if courses were presented in Dutch or Hebrew.

Summing up, it is unlikely that the U.S. education system will ever adapt substantially to a small percentage (less than 2%) of foreign students. Therefore:

1. Academic deficiencies of foreign students must be viewed and treated apart from EFL or EST.

2. All students are greatly helped by a transition process, going far beyond the present brief 'orientation'.

3. English instruction for science and technology students merits improvement and/or change in two directions, namely introduction of science and technology vocabulary and readings in general teaching for the first 7 months and creation of a final month of EST in lieu of the present 8th month.

Footnotes:

[1] EFL - English as a Foreign Language will be used in lieu of ESL (English as a Second Language) because English is often a third language; learning a third language is less difficult with potential implications for EST.

[2] Since about 1963 Elbert Covell College in Stockton, California has offered undergraduate education starting in Spanish and gradually switching to English; their graduates are bilingual Spanish/English.

The Clearinghouse has received a sample lesson from a ten lesson Special English series being developed in Brazil by Dr. Francisco Gomes de Matos at the Institute de Idiomas Yazigi. The series is entitled PEP (Professional English Program) and is being given trial teaching through this December. Publication and availibility is expected in March, 1978. The ten subject areas of PEP are:

1. Notes from a Patient's Diary
2. Biology
3. Medicine
4. Dentistry
5. Chemistry'
6. Public Health
7. Physics
8. Pharmacy
9. Nurses and Nursing
10. Health in the Year 2000

Each lesson typically consists of four parts, labelled 1) Interpet and Discuss; 2) Listen and Read; 3) Laugh and Learn; and 4) Grammar. The sample lesson received, entitled "Dentistry" is available through the Clearinghouse. Further information may be obtained by writing to Dr. Gomes de Matos at the address given later in the Newsletter.

NEWS FROM MEXICO

Lyn McLean informs us of the following:

"BEFAS - We are hoping to have the copyright for the BEFAS material this summer and will try to provide...information concerning its availability for use or reference as soon as possible."

(BEFAS is BASIC ENGLISH FOR ACADEMIC STUDY, an EST/ESP text being developed in Mexico and mentioned in an earlier edition of the Newsletter.)

"EDUTEC - We are hoping to publish Volume 4 of 'Languages for Special Purposes' this July...We would appreciate any contributions of articles or information which anyone would wish to send us."

Ms. McLean also informs us that the MEXTESOL convention will have an ESP component. Dates are Oct. 28 - Nov. 1, and the second call for papers has been issued. Proposals for papers and roundtable discussions should be sent to Lyn McLean, Program Chairwoman; SELEX; Universidad Autonoma Metropolitana; Apdo 23 - 181, Xochimilco; Mexico 23, D.F. Proposals for workshops (3, 6, or 12 hours in length) should be submitted to Sally Richards, Workshop Chairwoman; UID CELE UNAM; Ciudad Universitara; Mexico 20, D.F. A complete copy of the call for papers is available either from the Clearinghouse or the above addresses.

As can be noted in the bibliography section of issues 3 and 4, the Clearinghouse has a number of articles authored or co-authored by Ronald MacKay, now of Concordia University in Montreal. Reprinted below is the introduction to an article that first appeared in Volume 1, No. 1 of MEXTESOL Journal, April, 1976. The article points out some of the many factors to considered by those engaged in setting up EST programs.

ENGLISH FOR SCIENCE AND TECHNOLOGY IN MEXICO: PROBLEMS AND PRINCIPLES

Ronald MacKay, Universidad National Autonoma de Mexico

Introduction

The purpose of this article is to make explicit many of the problems facing those engaged in or about to be engaged in setting up an ELT programme for students or professionals in any of the various fields of science and technology. These words of caution and broad suggestion are drawn from experience gathered in both ESL situations, i.e. foreign scientists receiving advanced education in English-speaking countries, and EFL situations, i.e. scientists requiring English as an auxiliary skill in Polish, Czechoslovak and Israeli universities and, for the last twelve months, in the National Autonomous University of Mexico.

In the Foreign Language Centre at the National Autonomous University of Mexico, we have established a new unit. One of the principle objectives of this Research and Development Unit, as it is called, is to develop approprite teaching materials and techniques, based on adequate research, to provide university students with English as an effective working instrument in their academic studies. Statements of objectives can be deceptively simple. The increasingly popular phrase "English for science and technology" appears clearcut and simple but, in fact, conceals many problems both of a practical and theoretical nature. With our own situation in Mexico in mind, some of these problems will be identified and principles for effective action suggested.

(End of Introduction)

NEWS FROM LONGMAN

Longman's has informed us that the specific course books for their Nucleus series are now underway. Biology and Geology are in print, Nursing Science and Engineering are in production, and a set of supplementary drill and listening comprehension tapes for the already published General Science will also soon be available.

FROM THE EDITOR

The Oregon State business officers have requested that checks to the Clearinghouse be made out to Oregon State University instead of to EST Clearinghouse as has previously been the case. It simplifies the bookkeeping.

The Newsletter now has close to 100 subscribers, which will make a healthy Newsletter. Most future issues will be six pages in length. Contributions, short, long, cursory, or full blown are always welcome. Response so far has come from 15 countries as well as throughout the U.S.

We have learned about a number of theses and dissertations on EST around the country. The Clearinghouse is attempting to obtain copies of these and requests anyone knowing of such to let us know. This represents a substantial body of unpublished research which can be made available to the profession. The Clearinghouse can pay the postage and xerox charges to anyone with a thesis or dissertation to forward.

The Barbara Wiggin thesis abstracted in the last issue of the Newsletter is now available (see bibliography).

The Newsletter is short on user's reviews of EST texts and would appreciate hearing from instructors on the usefulness of whatever texts they are using or have used. The news will get direct to the publishers as several of them subscribe to the Newsletter.

Addresses not given elsewhere:

Michael Reymers, Director
Language Services International
2775 NE Wiberg Lane
Portland, Oregon 97213 USA

Dr. Francisco Gomes de Matos
Director Pedagogico
Instituto de Idiomas Yazigi
SEDE Nacional
Ave. 9 de Julho, 3.166
Sao Paulo, SP
BRAZIL

BIBLIOGRAPHY

The following articles are newly available from the Clearinghouse. The price following each article reflects the cost of printing and mailing. No profit on any article accrues to the Clearinghouse. Please make checks payable to Oregon State University.

Doherty, Michael P. AN INVESTIGATION INTO THE COGNITIVE VARIABLE IN EST PROGRAMMES; Univ. of Kuwait, 1977. 98¢

Ford, Jerome C. WHAT TECHNICAL ENGLISH IS ABOUT; Lectures given at the Ecole Normale Superieure, Bamako, Malo, Nov 1974. 78¢

Gomes de Matos, Francisco SAMPLE LESSON, PROFESSIONAL ENGLISH PROGRAM 1; Instituto de Idiomas Yazigi, Sao Paulo, Brazil 1977. 20¢

Mackay, Ronald ENGLISH FOR SCIENCE AND TECHNOLOGY IN MEXICO: PROBLEMS AND PROCEDURES; MEXTESOL J., Vol 1, #1 April 1976. 28¢

Mackay, Ronald LANGUAGES FOR SPECIAL PURPOSES: Edutec Ensenanza-Aprendizaje: Nuevas Perspectivas, April, 1975. 23¢

Reymers, Michael and R. Graves LANGUAGE SERVICES INTERNATIONAL EST LESSONS (6 lessons); Teheran, Iran, 1976. 30¢

Wiggin, Barbara SYNTAX AND DISCOURSE ANALYSIS: AN APPROACH TO THE TEACHING OF SCIENTIFIC ENGLISH (thesis); Univ. of Hawaii, 1977. $3.22

EST Clearinghouse
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#5 August, 1977

ENGLISH
for
SCIENCE and TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liaison Committee

Karl Drobnic, Editor
ELI AdS A100
Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

Douglas Murray, director of the United States-China Relations Program at Stanford, informs us that for the past two years his program has been preparing a textbook to teach scientific and technical Chinese. Those with an interest in CST may contact Dr. Murray c/o U.S.-China Relations Program, Bldg. 160, Rm. 163-J, Stanford University, Stanford, CA 94305.

Three people have now informed the Clearinghouse that they are currently working on dissertations in the area of languages for economics or business. This is an area closely related to EST, and if others doing work in this area will let me know by October 1, I will compile a mailing list which will circulate to those whose names are on it.

English Language Services, 14350 NW Science Park Dr., Portland, Oregon 97229, has forwarded a 1977 catalog which includes five pages of English for Special Purposes titles (pp 40-45). They distribute ESP publications by Regents, Oxford, Collier MacMillan/London and Thomas Nelson/London.

Ronald Mackay and Alan Mountford have a book coming out at the end of the year with Longman. It is a case-study approach to the planning and teaching of ESP courses entitled English for Specific Purposes.

The Clearinghouse has received information from two sources concerning the tapes that accompany Longman's Nucleus: General Science. The tapes consist of drills (6 or 7 per unit) and listening practice (2 or 3 per unit), approximately 20 minutes per unit. They should be available on tape and cassette in December of this year.

However, as the tapes are recorded in British English, they may not be available through the US distributor. Therefore, inquiries at the current time could probably most profitably be addressed to Longman House, Burnt Mill, Harlow, Essex CM20 2JE, England. If there is a decision to distribute these tapes in the US through the New York distributor, the Newsletter will carry that information. Readers might also request the Nucleus series prospectus from the above address.

The fourth issue of Languages for Special Purposes is out and circulating. This is the journal published by Universidad Autonoma Metropolitana in Mexico, and starting with #5 will be edited by Lyn McLean. Contents of #4 are "An Approach to Reading Scientific and Technical English" by Louis Trimble; "English for Academic Purposes: Some factors in listening comprehension" by J.E. McDonough; "The Discourse of Science and Teaching ESP at the Elementary Level" by Fernando Castanos; and "EST Teacher Training Seminar, Chile" by Estrella Pardo and Adriana Aguero. Write to: Editor, Languages for Special Purposes, Departamento de Lenguas Extranjeras, Universidad Autonoma Metropolitana, Xochimilco, Apdo. 23 -181, Mexico, D.F., MEXICO.

An earlier edition of the Newsletter informed readers of a RELC publication entitled Teaching English for Science and Technology. That volume is divided into four parts, with a number of articles included in each part. The parts are 1) "Advances in the Theoretical Analysis of EST"; 2) "Approaches to the Study of Scientific Lexicon"; 3) "The Development of Materials for EST"; and 4)"Teacher Training".

There is a second publication from RELC relevant to EST. It is entitled Reading: Insights and Approaches, edited by Edward M. Anthony and Jack C. Richards. Part III of that publication is"English for Special Purposes" and includes five articles on reading and ESP.

A third publication by RELC, Curriculum Development and Syllabus Design for English Teaching, edited by Geoffrey H. Wilson, contains a section of articles on "The Needs of Those Learning English for Scientific, Technological or other Special Purposes". Four articles are listed under this heading.

All three of the RELC publications listed above are part of the RELC Anthology Series and are available from: The Publications Officer, SEAMO Regional Language Center, RELC Bldg., 30 Orange Grove Rd., Singapore 10, Republic of Singapore.

The Summer issue of ESPMENA lists a conference of ESP specialists in Isfahan, Iran, November 6-10. Information may be obtained from Dr. Seid M. Ziahoseiny, The Free University of Iran, P.O. Box 11 - 1962, Abou Showali Street, Tehran 15, Iran.

Back issues of ESPMENA may now be obtained from the Clearinghouse on an "at-cost" basis. We will have back issues reprinted and keep a supply on hand; prices will be in the next issue of the Newsletter and should be somewhere under a dollar per issue. There are seven issues so far. Further details will be in the next issue, but those who definitely want copies as soon as they are available may write and make arrangements now.

Thesis and dissertation work, and similar papers, continues to pick up in EST. We have learned of the following completed work, which we are trying to obtain for the Clearinghouse. However, as this process is slow, those with access to the various institutions where they are lodged might find it faster to go directly to the source.

1. A Master's thesis (title not yet known) by Charles W. Lotte concerning the English used in the core curriculum in engineering at UCLA.

2. Lombeida, Ernesto. The Treatment of Technical Scientific Terminologies in Foreign Language Education. Thesis. Univ. of Texas at Austin, May, 1971.

3. Strukelj, Inka. Problems of Teaching Languages in Vocational Schools. Thesis. Univ. of Texas at Austin, August, 1973.

4. Puangmali, Suraprom. A Quantitative Investigation of the Vocabulary of some Engineering Texts and Implications for Teaching Engineering English Vocabulary to Learners of English as a Foreign Language. Thesis. Univ. of Kansas, May, 1975. (Also available in RELC Journal.)

A number of dissertations are in progress, and as titles and abstracts become available, the Newsletter will publish them. We have also learned of papers being readied for publication at both San Jose State and the University of Michigan. We will carry further information in the future.

As EST represents a relatively new area for thesis and dissertation work, we would like to assemble at the Clearinghouse a resource paper for thesis and dissertation committees. We have a working title—"Guidelines for the Evaluation of EST Theses and Dissertations" and would appreciate contributions from the profession. A good starting point would be comments on the composition of EST committees.

Information is sometimes received at the Clearinghouse about which there is ambiguity as to whether or not it should be published in the Newsletter. This generally falls into the category of work in progress or articles with copyright symbols on them. I would appreciate it if people writing in would let me know when something is not to published or distributed; I will otherwise assume that the information is intended for the public. While on this subject—the Newsletter is public domain. Information carried in it may be put to whatever use others see fit, with credit going to the Newsletter and the contributor(s) involved.

The November issue of the Newsletter will concern EST/ESP in Canada and is being guest-edited by Ronald Mackay. He is now collecting material for that edition and can be contacted at the TESL Centre, H-407; Concordia Univ.; 1455 de Maisonneuve Blvd. West; Montreal, Quebec H3G 1M8; Canada.

The current edition of Languages for Special Purposes contains the following information: "Another publication of interest to our readership is System, a journal for educational technology and language learning systems, Volume 3, No. 2 (May 1975) of which was largely devoted to languages for special purposes. Write to the editor: Norman F. Davies, Dept. of Language and Literature, University of Linkoping, SWEDEN.

We have been informed that a number of EST lessons have been developed at the University of Papua New Guinea and will be in print soon. Announcement will be carried in the Newsletter when they become available.

Examination of EST programs at various institutes around the world reveals a trend towards the use of movies, videotapes and live lecture presentations as a vehicle for introducing scientific content into classes and teach lecture comprehension. An excellent article for background information in this area is "The Use of Films in Teaching English As a Second Language", Joan Morley and Mary Lawrence, in Language Learning, Vol. 21, No. 1.

Films and tapes offer a way to bring science-specific topics into the language classroom without placing the teacher in the difficult position of being a science expert. Following procedures similar to those outlined by Morley and Lawrence, the EST teacher can concentrate on the language as it is used by the scientist, which is his primary job anyway.

The Morley-Laweence article is complete with worksheets and exercises that demonstrate ways to make lecture presentations meaningful exercises in practicing language skills, and while they require a great deal of advance preparation on the part of the teacher, they also point the way to dealing with the problems of bringing realistic, relevant content to the EST classroom.

One film series being used overseas is "The Scientist Speaks", available from the BBC. The EST program at Oregon State is currently using the "Better Listening Skills" videotapes reviewd in an earlier edition of the Newsletter. Free loan films are often available from agencies of the government, such as AEC, NASA, and other science oriented agencies.

ED. NOTE: The following article, which details an EST teaching technique, is excerpted in toto from the Summer, 1977 issue of ESPMENA. It is a technique which ESL teachers in America could adapt to their current courses with a minimum of special preparation. The technique lets the teacher concentrate on the language and leaves the supplying of specialist information to the student.

THE LECTURETTE - AN AURAL/ORAL TEACHING TECHNIQUE

Patricia Ann Hines, English Language Unit,
College of Engineering, Kuwait University.

In the fall semester of 1975-1976, the lecturette was adopted as a teaching technique in the aural/oral component of English 098. English 098 is the intensive English course taken by most incoming Engineering students at Kuwait University. Since that time this technique has been successfully used, with some adaptations, in other English courses in the unit.

The lecturette, as the term infers, is a short monologue, delivered by the student to the class on a subject which is related to his engineering studies. The purpose of the lecturette is manifold, encompassing research and organization techniques as well as presentation of material in English.

The following is a short description of how this technique has been used in English 097, a 50 hour non-credit course, of which aural/oral practice is only one component, in addition to reading and writing practice.

During the first week of class the students are given a paper which gives them information concerning the lecturette: Purpose, Presentation, Topic Selection, and Evaluation Criteria.

The students choose a date on which they wish to give their lecturette from a prepared list. Usually two lecturettes per class are scheduled. If a student fails to give the lecturette on the agreed date, he is penalized.

At least one week prior to his lecturette, the student must declare his topic in order that it receive approval.

If the topic is approved, the student must then write a brief outline of the material to be discussed in the lecturette. This outline is then checked for organization and relevance of material to the topic. Suggestions for improvement are then made.

In addition to this written preparation many students prepare visual aids for their lecturette; posters, charts, or props. The students are encouraged to use the blackboard as a visual aid during the lecturette. They are advised to write on the blackboard any vocabulary which the audience might find difficult as well as to draw impromtu sketches to help illustrate complicated concepts.

While the student gives his lecturette, the other class members are required to take notes. At the conclusion of the lecturette they are asked to write an answer to a question which is based on the contents of the lecturette. Generally, this question takes the form of a rhetorical act which is, or has been, under study in the writing component of 097. For example, the student might be asked to classify hand tools (CLASSIFICATION), define radar (DEFINITION), list the properties of aluminum (DESCRIPTION), or describe how the cooling system of a motor car works (PROCESS/SEQUENCING).

The answer is graded on the basis of two criteria. One mark is an evaluation of the scientific correctness, the other is an evaluation of the English grammar. The student who gave the lecturette is asked to write a model answer to the lecturette question and the science content of the other answers are compared to this model answer. When the answers are returned to the students, the best are examined and discussed.

I consider this post-lecturette question to be one of the most important aspects of the lecturettes. Because the students are aware that they will be tested on the lecturette, they are very conscientious in taking notes. In their desire to obtain correct information, they ask such questions as, "Could you speak louder please". "Could you repeat that." "Explain that again, I don't understand." "How do you spell that?" "Did you say ----- or ------?" These are the same type of queries that should be made in the 'real' science lecture.

The lecturette has proved to be one of the most productive components of the English 097 class. It allows for practice in speaking, writing, and listening for all members of the class. Also, it is easily recognized by the students themselves as giving useful, relevant English practice. In a questionnaire given to all 097 students in the first semester of 1976-1977, 88% found the lecturette to be beneficial. The only suggestion for improvement was "more".

The technique detailed in Ms. Hines article dovetails neatly with suggestions for the use of films in ESL classes made in the Morley-Lawrence article mentioned earlier.

Of special interest in the Hines article above is the use made of rhetorical acts, taught formally in another class and put in use in the lecturette. For those desiring background information on the rhetorical acts of scientific discourse, the research of Lackstrom, Selinker and Trimble is a specific source.

COMPLETE BIBLIOGRAPHY OF ARTICLES AND PAPERS AVAILABLE FROM THE CLEARINGHOUSE

People who were not on the original Clearinghouse mailing list have written in stating that they do not have information on what is available from the Clearinghouse. This is a result of supplies of Issues 1, 2, and 3 becoming exhausted. We are therefore publishing an up-to-date list of materials available from the Clearinghouse in the space below.

Others have mentioned the difficulty in ordering items from the Clearinghouse in terms of having to write out names, titles, etc. We suggest that those placing orders simply xerox the bibliography and use a red pen to check the articles they would like to receive. This seems the simplist way for all involved.

The materials below are available from the Clearinghouse on an "at cost" basis, which covers the cost of reproduction and mailing. No profit accrues to the Clearinghouse. Please make checks payable to: Oregon State University.

ARTICLES, WORKING PAPERS & SPECIMEN MATERIALS ON ENGLISH FOR SCIENCE, APPLIED SCIENCE & TECHNOLOGY HELD BY THE ENGLISH LANGUAGE SERVICING UNIT, UNIVERSITY OF KHARTOUM; Second Supplement, July, 1975 and Third Supplement, July, 1976. 26c

Adamson, Donald, Shelley Vance and Alan Waters; ENGLISH LANGUAGE PROGRAM, FACULTY OF SCIENCE, UNIVERSITY OF KUWAIT: April 77 40c

Blackie, David (editor). A GUIDE TO THE ENGLISH LANGUAGE PROGRAMME IN THE COLLEGE OF ENGINEERING, UNIVERSITY OF KUWAIT: Nov 76 76c

Collins, Michael J. A SELECTION OF LANGUAGE. ELI Monthly, UPM, Dhahran, Saudi Arabia. #19 April 77 33c

Doherty, Michael P. AN INVESTIGATION INTO THE COGNITIVE VARIABLE IN EST PROGRAMMES. U. of Kuwait, 1977. 98c

Ford, Jerome C. WHAT TECHNICAL ENGLISH IS ABOUT, Lectures given at the Ecole Normale Superieure, Bamako, Mali. Nov 74 78c

Gomes De Matos, Francisco. SAMPLE LESSON, PROFESSIONAL ENGLISH PROGRAM 1. Instituto de Idiomas Yazigi, Sao Paulo, Brazil, 1977. 20c

Johns, Ann M. BIBLIOGRAPHY: ENGLISH FOR SPECIAL PURPOSES. 83 items. 28c

JOhns, Ann M. THE TEACHING OF ACADEMIC ENGLISH FOR SCIENCE AND TECHNOLOGY. NAFSA Convention, New Orleans, May 77 31c

Jordan, RR and Ronald Mackay. A SURVEY OF THE SPOKEN ENGLISH PROBLEMS OF OVERSEAS POSTGRADUATE STUDENTS AT THE UNIVERSITIES OF MANCHESTER AND NEWCASTLE UPON TYNE. J. of the Inst. of Educ. of the U. of Newcastle upon Tyne and Durham. Vol 25, #125, Nov 73 33c

Konecni, Evica and Louis Trimble. SCIENTIFIC AND TECHNICAL RHETORIC, GLOSSARY OF TECHNICAL TERMS. U. of Skopje, Yugoslavia, U. of Washington, Seattle 1976 66c

Lackstrom, John E. THE READING COMPREHENSION OF ELLIPTICAL ARGUMENTS IN EST TEXTBOOKS. Utah State U. 65c

Lackstrom, John E., Larry Selinker and Louis Trimble. GRAMMAR AND TECHNICAL ENGLISH. English as a Second Language, Current Issues. The Center for Curriculum Development 1970 39c

__________. TECHNICAL RHETORICAL PRINCIPALS AND GRAMMATICAL CHOICE. TESOL Q. June 73. 22c

Mackay, Ronald. CONCORDIA UNIVERSITY TESL CENTER GRADUATE SUMMER PROGRAM 1977—ENGLISH FOR SPECIFIC PURPOSES. 26c

______________. ENGLISH FOR SCIENCE AND TECHNOLOGY IN MEXICO: PROBLEMS AND PRINCIPALS. MEXTESOL VOL 1, #1, April 76. 28c

______________. ENGLISH FOR SPECIAL PURPOSES: ENGLISH AND THE ENVIRONMENT. Bulletin Pedagogique Feb. 73, No. 24 Paris 33c

______________. LANGUAGES FOR SPECIAL PURPOSES. Edutec Ensenanza-Aprendizaje: Nuevas Perspectivas April 75 23c

Mackay, Ronald. TEACHING THE INFORMATION GATHERING SKILLS. RELC J. Vol. 5, #2, Dec. 74, Singapore. 40c

Mackay, Ronald and Alan Mountford. PEDAGOGIC ALTERNATIVES TO "EXPLICATION DE TEXTE" AS A PROCEDURE FOR TEACHING READING COMPREHENSION WITH SPECIAL REFERENCE TO ENGLISH FOR SCIENCE AND TECHNOLOGY. Bulletin Pedagogique, No. 44, Oct 76. 50c

______________. A PROGRAMME IN ENGLISH FOR POSTGRADUATE STUDENTS IN THE FACULTIES OF SCIENCE, APPLIED SCIENCES AND AGRICULTURE IN THE UNIVERSITY OF NEWCASTLE UPON TYNE. oration of ASLA, Stockholm, 27th-30th April 72. 52c

______________. READING FOR INFORMATION. 66c

Mage, Thomas. CONTRASTIVE DISCOURSE ANALYSIS: EST AND SST (SST = Spanish of...). IVth AILA Congress, Stuttgart, West Germany. 27c

Meinhoff, Joan. THE LANGUAGE OF SCIENCE AND THE FRESHMAN FOREIGN STUDENT. EST Newsletter #3. June 77. 31c

Project Team. ENGLISH FOR SCIENCE REPORT. ELI Monthly, UPM, Dhahran, Saudi Arabia, #19 April 77. 47c

Reymers, Mihhael and R. Graves. LANGUAGE SERVICES INTERNATIONAL EST LESSONS (6 Lessons). Teheran, Iran, 1976. 30c

Selinker, Larry and Louis Trimble. FORMAL WRITTEN COMMUNICATION AND ESL. J. of Tech Wr and Comm. Sp. 1974. 22c

______________ and T. Huckin. AN ANNOTATED BIBLIOGRAPHY OF RESEARCH IN SCIENTIFIC AND TECHNICAL LANGUAGE. The Yugoslav Serbo-Croatian-English Contrastive Project. 28c

Selinker, Larry, R.M. Todd Trimble and Louis Trimble. PRESUPPOSITIONAL RHETORICAL INFORMATION IN EST DISCOURSE. TESOL Q. Sep. 76. 21c

Selinker, Larry, Louis Trimble and R. Vroman. PRESUPPOSITION AND TECHNICAL RHETORIC. Eng. Lang. Teach. J. Oct 74. 20c.

Trimble, Louis. AN APPROACH TO READING SCIENTIFIC AND TECHNICAL ENGLISH. U. of Washington, Seattle. 36c

Trimble, R.M. Todd and Louis Trimble. LITERARY TRAINING AND THE TEACHING OF SCIENTIFIC AND TECHNICAL ENGLISH TO NON-NATIVE SPEAKERS. Forum. 54c

Widdowson, Henry G. THE DESCRIPTION OF SCIENTIFIC LANGUAGE. Le Francais dans le Monde. 35c

Wiggin, Barbara. SYNTAX AND DISCOURSE ANALYSIS: AN APPROACH TO THE TEACHING OF SCIENTIFIC ENGLISH (thesis). U. of Hawaii, 1977. $3.22

Call for Papers, 1978 TESOL Convention

The 12th annual convention of TESOL will be held in Mexico City from April 4-9, 1978. Members and friends of TESOL are invited to participate by making a presentation. Proposals for presentations are solicited from all people who have fresh insights to communicate to the profession or who have tried and true approaches to share.

The call for papers is being printed in full in the June issues of TESOL Quarterly and TESOL Newsletter, and the deadline for the submission of proposals is September 15, 1977. A copy of the call may be obtained by writing to: Charles H. Blatchford; Convention Chairman TESOL '78; Dept of ESL; U. of Hawaii; 1890 East-West Rd.; Honolulu, Hawaii 96822.

The call for papers should be of especial interest to those interested in EST/ESP as the 78 TESOL Convention is in Mexico City. Mexico is one of the leading centers of EST activity, and TESOL '78 will hopefully reflect this. We also urge people involved in EST in the Middle East and North Africa to showcase some of the fine work being done there. It could serve as an impetus to EST in the US, where interest is rapidly developing.

Note also that the upcoming MEXTESOL Convention (Oct. 28-Nov. 1) will have an ESP component. Refer to Newsletter 4 for that announcement.

SUBSCRIPTIONS

Subscriptions are still coming in to the Newsletter despite the fact that copies of Issues 1, 2, and 3 are out of stock. We are therefore accepting subscriptions from this point on for Issues 4-12 only at a reduced price of $3.00US. File copies of the first three issues will be placed in the Clearinghouse and can be ordered at cost of printing and mailing beginning next month.

SUBSCRIPTION FORM

Please enter my subscription to EST Newsletter. I understand that the first 3 issues are out of stock and need to be ordered separately. Enclosed is $3.00 for issues 4-12, to be published monthly. Make checks payable to Oregon State University. Mail to EST Clearinghouse; ELI AdS A100; OSU; Corvallis, Oregon 97331.

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#6
September, 1977

ENGLISH
FOR
SCIENCE AND TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liaison Committee

Karl Drobnic, Editor
ELI AdS A100

Oregon State University
Corvallis, Oregon 97331

EDITOR'S NOTE:

We have received a 41 page paper prepared at Ohio University by John Hitchcock, who is currently in Iran. The title of the paper is "Reading and Scientific English: Prospects, Problems, and Programs in Iran". The six sections of the paper are: I) Introduction; II) Extra-Linguistic Variables; III) The Reading Process; IV) Vocabulary and Structural Selection for EST; V) The Furor Over EST; and VI) Bibliography. Section V is reprinted below.

THE FUROR OVER EST

John Hitchcock, Arya Mehr University of Technology

The arguments for and against the teaching of EST are on both linguistic and non-linguistic grounds. On one side are the students who want greater relevance to their English courses and, on the other, teachers who quite naturally are fearful of what they perceive as a radically new teaching situation. In 1976 an ESL teacher in Britain was fired for refusing to teach a special purpose English course. A suit was filed against the employer for wrongful dismissal and the teacher won.

But certain teacher's reservations, no matter how cloaked, are tinged with a heavy anti-science bias and a preference toward literature. The chief proponent of this school is J.D. Corbluth, and his viewpoint is contained in a recent article entitled "English? or 'Special English'". (1975)

His initial claims are on a linguistic basis—saying that there are no appreciable structural differences to be found in EST. He seems to have missed the point that it is not the structures that are different, but the rhetorical functions to which they are put--their frequency and character departing from general English discourse.

Harmand (1975) also concluded that EST had nothing to offer other than the same syntactic structures which caused problems to all students of English. Her solution was to "...return to teaching important structures found in the text by audio-visual techniques which would be best adopted at the beginning of the course." (1975,153), because she found that their principle problem was phonological [this was a group of French students at the university level]. Somehow, using the aural mode to teach the written phenomenon of EST just does not seem too effective. Even more so when one thinks of how far removed from conversational oral speech EST really is.

Corbluth also notes that extracting certain syntactic features to focus on leads to the detriment of the whole body of English structures. This argument seems rather shallow when one considers that in most such EFL situations, the students have already had a number of years exposure to such patterns. Their needs are not to have a complete command of oral English, but specific needs for reading purposes. Further general English studies will simply be viewed as inadequate for their purposes.

Finally, Corbluth speaks of the English class as the cultural widener:

> ...in numerous developing countries it is the English class that provides a window on the world, that broadens the knowledge and awareness of students. Frequently the rest of the curriculum is limited and limiting, burdened by archaic content and method, a dead rote-learning of traditional material, sometimes inhibited by religious considerations. (Corbluth, 1975,283)

I wasn't quite aware of the missionary zeal aspect of English teaching, but now we are apprised. Nevertheless, it seems to be the case that (unless there is a Peace Corps volunteer or a similar outsider) if rote memorization is part of the rest of the studies, then it will be so in English. There are other means of learning about the world, and, once again, if culture is not the forte of your general student population, then why would it be stressed as such an important element?

Lastly, Corbluth takes a swipe at the quality of technical writers:

> Scientific texts and lectures are frequently badly organized, turgid, unclear--poor English, and poor scientific English, and great numbers of contemporary advanced textbooks are nightmares of language abuse (the field of linguistics is, alas, a prime

offender". (1975,235)

Likewise, in response, it may be fair to say that the reason we have so many who can not write lucid technical prose in either their mother tongue or a second language might be because their composition teachers stressed literary technique. How many hgih schools, for example, offer courses in technical as well as creative writing?

Ewer sees some unfortunate byproducts of Corbluth's brand of thinking in terms of teacher outlook:

> ...there is a real possibility that his previous literature-oriented education will have left him with an anti-science bias--conscious or unconscious--which is impossible to conceal from his students and which can ruin his relationship with them. (Ewer,Davis:1972;271)

And Strevens comments on the relevance of braodening experiences in so many overseas, traditional EFL classes:

> ...there are few existing English. . . courses that would not be improved and rendered vastly more interesting by . . . replacing stories of King Arthur and the Round Table by extracts from current science fiction...(1971,272)

It is rather interesting to note that both Harmand and Corbluth talked about the essential boring quality of a course centered around EST. Boring for whom? I think the question answers itself.

It would seem that we are now past the time of debating the particular merits of teaching EST. From a very practical point of view, a willing market exists, particularly in EFL situations where the need for solid, compact reading courses is greatest.

There appear to be three areas that need specific attention in the EST field today:
1. Giving traditionally-trained teachers a general background in the rhetoric and structures of scientific English and a sufficient preparation in linguistics to enable them to act, react, create, and innovate.
2. Development of a good core of EST materials--the field is still relatively young and does not have the acquired experience that comes with time.
3. Proper development of programs to meet the specific needs of students—be they practical or theoretical.

Although it is not the purpose of this paper to make specific proposals about materials development, certain ideas from the literature nevertheless arise. It would seem to me that materials for an EST reading course for academic purposes would benefit from: 1) a sound analysis of the basal, sub-technical vocabulary, 2) a taxonomy of the syntactic structures of EST and how they interact in various environments, and 3) a conceptual core for the course based on the rhetorical functions of EST and how they in turn are a re - flection of scientific concepts and thought.

Hopefully, with such a framework, the positive motivation and needs of the students would not be frustrated, and that, ultimately, this would enhance their performance.

* * * * * *

HISTORICAL PERSPECTIVE

Readers will note an item in this issue's bibliography by Larry Selinker. It is a 1968 book review of Croft and Brown's, Science Reading's for Students of English as a Second Language. The review contains a number of Selinker's early observations on the average ESL teacher's lack of scientific competence. We are excerpting below two paragraphs in which he discusses the problems of interpreting compounds.

"Who among us could help the chemical engineering FS decode the compound gas mixture product? As native speakers of the language, what is clear to us about this compound? Well, it is a type of "product" which concerns mixing of gases in some way. But beyond that, does it mean a "product with which one mixes gases" or a "product in which the gases are already mixed"? Clearly, knowledge of the universe in which discourse contains this compound is essential to correctly choose the latter gloss. Furthermore, who among us could help this same student who is in the course of writing up an experiement wishes to encode the following items: three section, packing, absorption, tower? What is the correct answer? And suppose he adds Corning Ware for good measure. Clearly the correct answer depends upon the practicioners of the field involved; one rule, however, seems to work: previously established compounds are not broken up.[5]

Whether knowledge of semantics can be divorced from knowledge of the world is quite open to question. It is true, of course, that the meaning of such compounds can be explained verbally as was done above with gas misture product. But eventually, it seems to me, someone's knowledge of the reference is essential to create and disambiguate compounds fo this type. How much knowledge of this type the EFS professional must have should concern us. Furthermore, varieties descriptions of the various technical Englishes will clarify the problem, may help solve it, and should be encouraged.

We understand that Selinker has since completed extensive research on the problem of teaching EST without a science background and is preparing a report on the subject.

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[5] In this case, absorption tower and packed absorption tower. The correct answer is, by the way, three-sectioned corning-ware packed absorption tower.

ENGLISH FOR THE MEDICAL SCIENCES

The Clearinghouse has received a number of queries from people involved in teaching English to medical personnel. Several publishers list texts in this area. Regents lists Hospital Services in English as part of their "English for Careers" series. Collier-MacMillan has three books under the title Medicine as part of their Special English line. There are tapes to accompany each book.

Longman's has three books that bear on the medical sciences: 1) Practice in Medical English by Mathold and Mathold; 2) English for Nurses by Austin and Crosfield; and 3) Nucleus: Biology by Adamson and Bates. The latter is a recent publication and is extensively reviewed in issue 7 of ESPMENA.

English for Nurses is described as ". . .a modern course in English for nurses and other hospital staff whose jobs require a working knowledge of the English of medical care. It is an excellect preparation for nurses planning to work in hospitals where English is the spoken language.

The course provides practice in the English of medical science as well as the language of the ward, the general aim being to give students active training in communicating with English-speaking patients."

Practice in Medical English is described as a compilation of ". . .extracts intended for students who are learning English as an aid to their medical studies. It provides examples of the kinds of English prose style that they will meet in their medical textbooks, journals, lectures and case histories.

Each chapter is accompanied by a glossary of the more difficult 'general' words and by a wide variety of exercises. These excercises are designed primarily to assist and test comprehension, but will also help students in the skills of precis, paraphrase, note-taking and discussion".

The introduction to this book characterizes medical writing as follows: "Medical writing relies very heavily on a specialised vocabulary, a great deal of which is not English but Greek. Most of these words cannot be usefully translated or even defined. They are accepted international medical terminology which medical students must learn irrespective of whether their own language is Siamese or Swahili".

We also have the following listing: Cowan, J.R., L. Bauman and E. Mackelduff. 1974. English for Medical Students: A Reader in Technical English for Students of English as a Second Language. Champaign, University of Illinois.

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BOOK REVIEW

The following review first appeared in the Spring, 1977 issue of "ARELS" Journal. Two paragraphs of that review are excerpted.

NUCLEUS — GENERAL SCIENCE, Martin Bates and Tony Dudley-Evans, Longman.

The students' book is attractively illustrated, well set out and concise. Making it easy to use for revision and homework. Each unit begins with a short presentation section and develops this into a wealth of intriguing practice excercises and problems involving information transfer from diagrams. These problems are designed to promote genuine communication rather than mechanical response and students certainly enjoy doing them orally as a group or pairwork. The teachers' notes are helpful without being overpowering. They contain a detailed introduction to the series as a whole, lists of main language points in each unit, hints on presentation and practice, and one demonstration lesson. They also include simple notes on scientific background where necessary.

Since General Science deliberately sets out to avoid actual scientific subject matter, the course may appear to be rather sterile. However, here lies its potential strength as the teacher and students are then free to bring their own vitality into the course. Visual aids can be selected to suit the interests of the group and individual students can communicate their own knowledge to each other. Under skilful management by the teacher the General Science course can be a very worthwhile educational experience.

Douglas Macrae-Brown
Meads School of English

* * * *

EST COURSE FOR TEACHERS

The University of Michigan will offer an EST course during the coming winter term. The course name is "Teaching Technical English." It will be taught by Larry Selinker, who has assumed the directorship of the ELI at that institution.

ESPMENA AVAILABLE

The seven issues of ESPMENA are now all available from the Clearinghouse. These are reprints of the bulletin, without the stiff paper covers ESPMENA has adopted for its last several issues. They can be ordered at the prices listed in the bibliography.

READING LIST

Ron Mackay has developed an excellent reading list for his "English for Specific Purposes" course at Concordia. The list makes an excellent base for those involved in either the theory or the practical applications of EST. A number of the articles are available from the Clearinghouse. The reading list is reprinted below as a guide to those who wish to design their own course of study in EST.

1. "Languages for Special Purposes", Ronald Mackay, in EDUTEC No. 3, April 1975, UAM, Mexico City.

2. "English for Science and Technology in Mexico" Ronald Mackay, in MEXTESOL Journal, vol. 1, No. 1, April 1976, Mexico City.

3. "Identification of Problems and Needs: A Student Profile", R.R. Jordan, in Cowie, A.P. and Heaton, J.B. (eds) English for Academic Purposes, Papers on the Language Problems of Overseas Students in Higher Education in the U.K. A BAAL/SELMOUS Publication, 1977.

4. "On Defining Linguistic Objectives for the Teaching-Learning of Modern Languages for Adults", Max Gorosch, in de Grève, M., Gorosch, M., Sandulescu, C.G. and van Passel, F. (eds), Modern Language Teaching to Adults: Language for Special Purposes, 2nd AMAV Seminar, with the collaboration of AILA, April 1972. Didier, Paris, 1973.

5. "Final Report of the English Section", Ronald Mackay, in de Grève, M., Gorosch, M., Sandulescu, C.G., and van Passel, F. (eds). Modern Language Teaching to Adults: Language for Special Purposes, 2nd Seminar, with the collaboration of AILA, April 1972. Didier, Paris, 1973.

6. "Estimating Adult Needs", C.V. James, in Perron, G.E. (ed). Teaching Languages to Adults for Special Purposes. CILT Reports and Papers No. 4, CILT, London, 1974.

7. "Practical Registers: (A) Situations: Language in Action; (B) Collecting, Describing, Teaching", Jean Ure, in English Language Teaching, Vol. 23, No.2, 2 and 3, 1969.

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BACK ISSUES OF THE NEWSLETTER

For those who entered their subscriptions at the reduced rate after supplies of issues 1, 2, and 3 were exhausted, reprints of those issues are now available. See the bibliography.

* * * *

LATE ARRIVAL OF ISSUE #5

Renovations in Oregon State University's printing department during the August-September vacation period resulted in the delay of issue #5. Thank you for your patience.

* * * *

SUBSCRIPTIONS

Subscriptions continue to come in to the Newsletter. As we have only reprints available of the first three issues, we are asking that new subscribers consider their subscriptions beginning with Newsletter #4. New subscribers who would like reprints of numbers 1, 2, and 3 may enclose an extra $1.00 for those issues with their subscription. The reprints will come at printed matter rates and arrive somewhat later than subsequent issues.

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#7
October, 1977

ENGLISH
FOR
SCIENCE AND TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liaison Committee

Karl Drobnic, Editor
ELI ADS A100

Oregon State University
Corvallis, Oregon 97331

EDITOR'S NOTE:

The Clearinghouse has available a typescript of Margaret M. Van Naerrsen's presentations at the Spring 1977 NAFSA and TESOL Conventions. This 15-page paper, the abstract of which is reprinted below, deals with the language needs of foreign medical graduates. The paper reflects an obvious wealth of practical experience in dealing with these needs and provided background information for setting up programs, indicates information resources, and includes a fine bibliography of research and textbooks available.

FOREIGN MEDICAL GRADUATES A SURVEY OF PROGRAMS AND MATERIAL FOR ESL AND CULTURAL ORIENTATION

Margaret Van Naerrsen,
University of Southern California

This presentation surveys special English and cultural orientation programs and materials for foreign medical graduates (FMGs) in the United States, and to a limited degree in Great Britain.

A brief description is given of the general examining and licensing procedures of FMGs with special attention given to the testing of English language proficiency. A special concern is the failure of existing requirements and hiring procedures to test adequately the abilities of FMGs to communicate orally with and to relate culturally to their patients and colleagues. As a result, in many but not all instances patients are unable to understand their foreign doctors. This can be particularly critical in emergencies, out-patient clinics, and in prescribing follow-up treatment at home. It also can result in dangerously inadequate medical records in hospitals.

In surveying the materials, the emphasis is also on their appropriateness in meeting the day-to-day communication needs of FMGs in hospital settings and on how they can be best used in a variety of ESL classroom settings; in hospital training programs, in community adult education, and in colleges/universities.

* * * * *

THE TEACHING OF ENGLISH FOR SPECIFIC PURPOSES

REPORT

of the International Latin-American Seminar held at Paipa, Bogotá, Colombia, April 1977.

All those concerned with the Teaching of English for Special or Specific Purposes — whether as teachers, research workers, administrators, curriculum planners or materials developers, will be interested in this Report. It contains full reprints of the principal presentations at the above Seminar, viz.

1. "English for Special Purposes in ELT"
   J.A. Barnett, Controller, English Teaching Division, The British Council, London.
2. "Processing Profiles of Communicative Needs"
   J.L. Munby, Director, English Teaching Information Centre, The British Council, London
3. "The Communicative Approach and its Applications"
   Professor H.G. Widdowson, University of London, Institute of Education, London

This study was designed to determine the relative frequency and sentence-level use of syntactic structures in contemporary written scientific American English, as exemplified in textbooks used by students of civil and electrical engineering, the most popular fields of study for foreign students in the past decade. The primary sample consists of two thousand sentences (approximately 46,000 words) from one hundred engineering texts. A control sample of 919 sentences (approximately 23,000 words) was drawn from contemporary American literary prose, as represented in anthologies compiled for use in undergraduate English courses consisting primarily of native speakers.

One thousand T-units (independent clauses their modifiers) from each sample were coded in terms of sector analysis, a tagmemic (slot-and-filler) grammar. These data, as well as the original sentences, were key-punched for computer processing with programs written in SNOBOL4. The availability of a computer made it possible to go further than any previous investigation in specifying the grammatical characteristics of scientific writing.

The results of the study confirmed the hypothesis that engineering writing uses a smaller subset of the total inventory of grammatical constructions in English than does literary writing. Engineering writers make limited use of the grammatical options open to them, notably in variety of sector-matrix arrays, range and diversity of T-unit length measured in words, number of filled sectors per T-unit, and use of inserts. A typical engineering textbook sentence (what might be called the modal sentence) comprises one T-unit eighteen words long with four sectors filled, giving an average of slightly over four words per sector. The modal patterns is subject, passive verb, complement, with the subject position filled by a cluster and the complement position by a prepositional phrase. The complexity of scientific writing, as exemplified in engineering texts, seems to reflect a genre preference for nominal style, as shown in the proportionately higher use of determiners, prepositions, and nominal and adjectival suffixes.

Engineering writing is a simpler version of English than literary writing. The latter, although also a subset, is better defined by its diversity than by characteristics shared with engineering writing. Syntactic variations appear as elements of individual style; no patterns of usage are common enough to permit meaningful generalization. It would be accurate to say that literary English approximates the characteristics of the English language.

In dealing with engineering writing, as with a subset of any language, the student's task is essentially that of deciphering a code. Since engineering writing is less complex than literacy writing, it is probably easier to learn. Much of its simplicity lies in the use of a few sentence-level patterns. Once a student is able to recognize these patterns, identifying the component tagmemes and understanding their syntactic and logical relationships, he will be better able to deal with the complexity of individual sector fillers. The findings of this dissertation explain many aspects of the code. It is the responsibility of the EFL teacher and textbook writer to apply them.

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Van Naerrsen, Margaret. TESOL CONVENTION. Spring, 1977. Miami, and NAFSA Convention, Spring, 1977. New Orleans. 78c

MASTER'S THESIS AVAILABLE

The thesis abstracted below will be available from the Clearinghouse next month. Cost will be $3.00-5.00. As the thesis runs about 135 pages, we would appreciate those who definately want a copy letting us know now so that we can get an idea of how many to have reproduced.

INTRODUCTION

> "Since it is impossible to teach the whole of a language, all methods must in some way or another, whether intentionally or not, select the part of it they intend to teach."[1]

Language by itself is a unit, and as such it is acquired either as native or foreign tongue. The fragmentation sketched in theory for its study and analysis, and for the purpose of inquiry and investigation serves to reveal language as a complex whole. Along the same lines, the levels differentiated by modern linguistics studies, namely, phonological, morphological, syntactical and semantic, as well as the determination of the minimum significant units to the most fruitful description of a language. This description, in turn, has rendered a significant contribution to the improvement of foreign language teaching by making it possible to establish a comparison between native and target language structures.

---

[1] W.F. Mackey, Language Teaching Analysis, 1965.

Direct correspondence has always been and becomes even more important as contacts increase. Carrying written exchange requires the ability to express one's ideas clearly and with accuracy on a variety of matters. A comparatively small number of learners will need to be able to write essays or dissertations in the foreign language but many of them will need to know how to write letters, cables, or telegrams concerning everyday affairs.

Nowadays it is taken for granted that the study of a foreign language, skillfully taught under proper conditions provides a new experience and progressively enlarges the learner horizon through the introduction to a new media of communication and a culture pattern. It has also been recognized that the ability to understand and speak, read and write a foreign language, indispensable as these abilities are, may be of no avail unless we are also able to communicate effectively the silent language of manners and behavior. The most highly valued objectives of foreign language learning are therefore appreciation of how ideas are differently expressed in a foreign language and the awareness of the importance of increased respect and tolerance for the ideas, values, and achievements of other cultures.

Over the past twenty years the various assumptions by linguists and psychologists about language and language behavior have been the source from which modern teaching methods have developed, methods which have brought far-reaching changes in classroom procedures and teaching materials.

The improvements accomplished, however, have not reached all areas of foreign language instruction, in part because these areas emerged with the complexity of modern times and therefore are new and need urgent attention. Technical communication has been little explored in spite of the fact that language instruction for technology and science students is a necessity of modern times, grown immensely with the progress achieved in these fields.

The interest in technical communication is largely caused by changes in the economic systems, the need for more highly trained workers, greater affluence, and the desire of a broader segment of the population for upward social and economic mobility.

It is clear that education has to undergo marked transformations if it is to be adequate to the new demands placed on it Today a serious re-examination of the distribution of curricular demands over the entire period of schooling is taking place.

Curricula must have ends in view. They must be structured in relation to some purposes. The purposes should be stated in terms of the change in students the curriculum is intended to bring about. Explicit specifications of content and objectives define in part what the curriculum includes and what it is intended to accomplish. Clearly, age, level and type of previous learning are important factors in defining what is possible for a particular group of students who have varying levels of ability, varying interests and attitudes toward learning tasks. The central task is to develop those characteristics in the students which will enable them to live effectively in a complex society.

This leads us into a very important consideration, that of making a decision of what the objective of foreign language learning should be in vocational schools where the subjects offered are automotive mechanics, electricity, plumbing, printing, and many others and where the immediate student objective, as far as language is concerned, is to be able to understand information given in that language.

I intend to point out the teaching of technical communication and rhetoric as a particular problem within the realm of foreign language teaching, and by doing so I hope to get this to the attention of those persons who could provide adequate answers to what the approach might be to teaching technical communication in a foreign language course and who could provide adequate specialized programs and materials to serve these particular needs.

The first chapter is intended to point out the importance of education as a process of change and the importance of defining appropriate objectives. Chapter II deals with technical communication and rhetoric and the last chapter contains some implications for language learning and teaching procedures in this field.

By Inka Strukelj, University of Texas, Austin
August, 1973.

The Languaguage of Engineering Textbooks

EDITOR'S NOTE:

The Clearinghouse has obtained the abstract of Jean McConochie's dissertation at Columbia University, 1969. The dissertation is available from University Microfilms International, Dissertation Copies, P.O. Box 1764, Ann Arbor Michigan 48106. The catalog number is 7012561 01500. The cost is US $7.50 for microform, $15.00 for xerographic. Outside US is slightly more.

ABSTRACT

SIMPLICITY AND COMPLEXITY IN SCIENTIFIC WRITING: A COMPUTER STUDY OF ENGINEERING TEXTBOOKS

The use of language depends on the mastery of grammatical patterns. But in the teaching of English as a second or foreign language, the decision as to which grammatical patterns will be taught and the order in which they will be presented has remained necessarily subjective in the absence of extensive structure frequency counts.

4. "Materials Production for ESP - Some First Principles"
   A.M. Harvey, M. Horzella and G. Latorre, University of Chile and Catholic University, Chile
5. "The Preparation of Rhetorically Focussed Materials for Service Courses in English"
   J.D. Moore, University of Los Andes, Bogotá
6. "The Development of EFL Materials for Occupational English"
   R.M. Todd Trimble and Louis Trimble, University of Washington, U.S.A.
7. "Developing Skills and Resources for Teaching in an ESP Situation"
   T.C. Jupp, National Centre for Industrial Language Training, London

The Report also contains slightly abridged versions of supporting papers by Margarita Ruiz Rocca and Mary Ann Larsen Pusey (Columbia), Fernando Castaño (Mexico), Maria Antonieta Calani (Brazil), Mark Todd (Columbia), Maria Horzella (Chile), Veronica Gonzalez and Ruth Borgman (Mexico), T.C. White (Chile) and Harry Hawkes (Peru), together with other details of the proceedings at the Seminar, and a full list of participants.

Copies of the Report are available on sale from the following sources:

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SCIENTIFIC AND TECHNICAL CHINESE

The textbook for teaching scientific and technical Chinese being developed at Stanford and mentioned in Issue 5 of the Newsletter is nearing completion and a printed, loose leaf version is expected to be ready for circulation by the end of the year.

MASTER'S THESIS AVAILABLE

The thesis abstracted below will be available from the Clearinghouse next month. Cost will be $3.00-5.00. As the thesis runs about 125 pages, we would appreciate those who defintitely want a copy letting us know now so that we can get an idea of how many to have reproduced.

INTRODUCTION

Any educational system has the dual role of shaping and being shaped by the society it serves. It is this circumstance that makes the task of designing foreign language education an extremely important one.

> The need and urge to communicate through language to fulfill complex needs of a human being are a constant stimulus to use language. Urges, desires, wants, needs, ideals, and values result in conflicting motivations from which the will selects some to act upon and combats others through inhibition and practice. (R. Lado, Language Teaching—A Scientific Approach, p. 34)

In any areas of contact with others a variety of social pressures influence the use of foreign language intrusion for the various fields of culture and civilization, science and technology, economy and politics have been given during the last decades in large numbers and in aloquent forms.

The need for communication in today's world speeds out the goals toward which foreign language instruction should be pointed.

Communication by sound is certainly one of the outstanding scientific achievements of our time. Distance and time are conquered with the use of such instantaneous media as the space satellite, the micro-wave relay, and the overseas telephone. Obviously, in a world where man can communicate with all parts of the world by sound, the ability to understand a language when it is spoken is one of the basic skills which must be developed in every foreign language learner.

Learning to express oneself verbally implies not only the ability to formulate questions and answers in the foreign language, but also the ability to express one's points of view, to defend one's opinion, to take part in conversations and discussions.

Knowing a foreign language suggests the capacity to read with ease and comprehension directly from the page as it is written. Trade journals, specialized periodicals, newsletters, brochures, treatises and other kinds of writings are published in increasing number and imported in all countries by tons each year.

Accordingly the task of foreign language teaching has concentrated its efforts in the development of four skills; listening comprehension, speaking, reading and writing. To the same extent textbooks and teaching materials are being prepared following similar guidelines, and of course, new teaching methods and teaching techniques enjoy the preference of most schools.

All the improvement accomplished, however, has not reached all areas of foreign language instruction, in part because these areas emerged with the complexities of modern times and therefore are new and in need of urgent attention. One of these areas is that of the teaching of technical-scientific terminologies in a second language. This is a field where the interest is concentrated in a particular "section" of the language, that of the ever-increasing technical-scientific vocabulary which is familiar to students in technical and vocational schools, to technicians trained in foreign universities, and returning to their native countries to teach, and also native English speakers serving in foreign countries in specialized fields of technology. For them the problem of communicating, imparting and receiving knowledge is handicapped by the lack of ready accessible translations. There is however in this area a great portion of what is currently labeled as "international" terminology, which serves to a very limited extent the needs for conveying some sort of meaningful communication among technicians and scientists speaking different languages. This small segment of international language, as in the case of figures, numbers, formulae used in mathematics, does not solve the problem at all, and there is no alternative but to face the demands of current times and bridge the gap existing between technological advance and the deficiencies of communicating such advancements to less developed nations.

Everywhere in developing nations there is a great effort devoted to technical training in vocational schools and universities. Their sources of information are abroad and are expressed in a foreign tongue. The means to profit from such information are limited to technical glossaries and a few up-to-date technical dictionaries.

Although it was clearly stated at the beginning that language is a unitary system, a whole in itself no matter how complex; yet here we are interested in a parcel of it, that of a specialized lexicon. Small as it might be, it is also important and significant for those abroad engaged in learning and teaching technical and scientific matters and skills.

It still remains to point out the implications of mentioning the unitary nature of language and at the same time our interest in only part of it, its lexicon, or more precisely, a specialized lexicon. The leads us into a very important consideration, that of making a decision of what the approach might be to teach a specialized lexicon in a foreign language course. That is, how do we teach English as second language in technical schools where the majors offered are, among others: automotive mechanics, printing, electricity, photography, plumbing, carpentry, radio and television; and where the students' immediate objective, so far as the foreign language course is concerned, is to be able to understand information given in that foreign language. Do we teach English as such first, and then the specific area we are interested in, or do we start by that special area and progress to a reasonable knowledge of the English language, or still further, do we look for a different approach, and if so, which, and how?

I intend to single out the teaching of technical scientific terminology as a particular problem within the realm of foreign language teaching, and by so doing I hope to bring this to the attention of those persons who can provide adequate theoretical foundation and the means to articulate specialized programs to serve particular needs. I am refering here to the needs of technologists and scientists in developing countries who face a real foreign language problem within the larger problem of catching up technologically with more developed nations. This language problem results from the fact that a large proportion of the world's scientific and technical information is now published in languages others than those spoken in the underdeveloped world. Statistics on this problem will be given later to provide a view of the proportions of the problem.

The first two chapters are intended to describe the marginal treatment of technical terminologies in foreign language teaching. Chapters III and IV deal with the nature of technical terminology, and the last chapter contains some implications for teaching proceudres in this field.

THE TREATMENT OF TECHNICAL SCIENTIFIC TERMINOLOGIES IN FOREIGN LANGUAGE EDUCATION

Ernesto Lombeida, Univeristy of Texas,
Austin, May 1971.

* * * * * *

EST Lecture Tour in Britain

Louis Trimble and Robert Kaplan will be lecturing in England from October 29 to November 12. Lectures are currently scheduled for the following universities: London, Edinburgh, Lancaster, and Manchester. There may also be lectures at Birmingham and Essex, and some additional sites.

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Issue #8
November, 1977

ENGLISH

FOR

SCIENCE AND TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liason Committee

SPECIAL ISSUE EDITOR

Karl, Drobnic, Editor
ELI AdS A100

Ron Mackay,
Concordia University, Montreal

Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

This issue of EST Newsletter is devoted entirely to English for Special Purposes in Canada. It has been compiled and edited by Ron Mackay of the TESL Centre, Concordia University, in Montreal.

INTRODUCTION TO THE CANADIAN ESP SCENE

The current movement in foreign language teaching towards more clearly defined and more pragmatically oriented goals has been given the general name of Languages for Specific Purposes and Canada is active in both French and English for Specific Purposes. Within the field of English for Specific Purposes, a number of subdivisions can be made by looking at the language teaching task from two broad points of view: (i) the field of knowledge in which the learners will be required to use English e.g. economics, oil-drilling, catering, micro-biology, etc. and (ii) the kinds of functional language skills the learners will be required to master in English, e.g. writing technical reports, reading research journals, interviewing patients, giving instructions, etc.

We can view English for Science and Technology, then, as a subdivision of the English for Specific Purposes. It is with the entire field of Special Purpose English Language Teaching in Canada and the activities associated with it that we are concerned in this issue. The contents of this issue derive from a coast to coast survey carried out over the last four months. Over two hundred institutions (universities, government department, armed forces language schools and private industries) were asked to participate in the survey. While having attempted to be as thorough as possible, we are aware that this survey is not as complete as we would have wished and we would welcome news of any ESP activities not uncovered by our recent investigations.

It is gratifying to see that the development of instruments designed to establish a body of information about the students, upon which decisions about goals (and eventually materials and methods) may be based, is receiving attention (Universities of Alberta, Concordia, and the Collège of Jonquière in Québec). Nor are operational models for the analysis of target discourse being neglected (University of British Columbia). Actual descriptions of certain types of target discourse, work essentially carried out prior to materials development, are underway at Concordia University. In that University, ESP work has been stimulated by the provision of two graduate courses: "Syllabus Planning and Materials Development" and "English for Specific Purposes" and the interest and availability of graduate students as well as the establishment of the Curriculum Development Unit discussed in the article by André Cyr.

English for Academic Purposes is benefiting from the efforts associated with the provision of appropriate language skills to both native-speakers (Univ. of British Columbia and John F. Kennedy High School, Montreal) and to non-native speakers (Carleton, Ottawa, Concordia, Manitoba, Toronto, Dalhousie, Guelph) At the same time, English for Occupational Purposes is thriving with specialized courses for medical doctors (Toronto) air-traffic controllers (Concordia) potential employees in commerce (Bois de Boulogne Community College, Montreal) and public employees (Public Service Commission, Ottawa). A specialized activity which fits into a category of its own is the work being done for Spanish-speaking immigrants by the Ministry of Culture and Recreation in Ontario.

We have summarized the findings of our survey on page X, in the form of reports, articles, books and other documents available either through the Clearinghouse or from the authorities cited. In addition, we are including six brief articles from Canadian based authors written especially for this issue. These articles cover various aspects of what can be involved in the total ESP activity.

Several of the papers indicate the importance of basing materials and course design on information concerning the needs of the students involved. Derwing and Schultz' paper indicates how thoroughly and objectively this stage of the ESP operation can be carried out using detailed questionnaires and computer assistance. This information helps to determine the exact area involved and the functional skills required. The papers by Craddock and Pavelich give practical accounts of the rationale, content and teaching of two separate specific purpose programmes in academic environments. Butovsky deals with the planning, content, evaluation and subsequent modification of a "social survival" course for Spanish-speaking immigrants to Ontario. The difficulty involved in sorting students into groups which allow meaningful decisions to be made by the curriculum developer and materials writer is discussed in Cyr's account of the work of the Curriculum Development Unit which he heads, in Concordia University. Criteria which may be used for selecting teaching points - the situation approach discussed by Butovsky and the notional approach mentioned by Cyr, are seen embodied in an operational framework in Mohan's paper. He discusses ways of ensuring that the important communicative functions of discourse, as well as the linguistic elements used to realize these functions, are identified and included in ESP instructional materials.

Each of the papers in its own way reminds us that part of the success of any ESP teaching operation depends upon the clarity with which the purposes for which the language is required by any given group of learners can be clearly specified and translated into goals and materials.

Ronald Mackay

(I would like to thank Lennie Wylygan, Monique Julien and Molly Borenstein for their efficient secretarial help during the information gathering stage of this project and the preparation of the copy for the Newsletter.)

* * * * * * *

Gathering Information on Est Needs in the Republic of China

(Editor's note: This article is a reduced and slightly edited version of Derwing and Schutz' full report of the diagnostic phase of their project. The report, which bears the title, "The Diagnosis and Assessment of EST Needs in the Republic of China".)

Bruce L. Derwing and Noel W. Schutz, Jr.

1. Background.

In the Spring of 1977, a project on English for students of science and technology in the Republic of China was initiated by Professor C.M. Yang, Chairman of the Department of Foreign Languages and Literature at the National Central University, Chung-Li, Taiwan. With the support of a grant from the National Science Council of the R.O.C., the two of us were contracted as Projector Director and Project Coordinator, respectively. Our project consisted of two main phases, one diagnostic, the other experimental (involving the development and testing of new pedagogical materials), but we shall have to restrict our attention in this paper to the first phase only. For a full discussion of the project, see Derwing, Schutz & Yang (1977) from which the present paper is an excerpt.

The main purpose of the diagnostic phase of our project was to assay a reasonably wide range of educated opinion with regard to the question of the actual English language needs for science and technology in the Republic of China, as well as to collect ancillary data on the question of the extent to which current programs are satisfying those needs. Only on the basis of data of this kind could rational answers be given to the two main questions which our project sought to answer, namely, whether special programs in EST were actually called for in the country and, if so, what specific directions such programs should take.

2. Preparation and Distribution of the Questionnaire.

During the first few weeks of the project, we prepared a Diagnostic Questionnaire, which consisted of a long series of questions designed to yield information related to the nature of the subject sample tested (items 1-12, their previous English language training (items 13-41), a detailed assessment of their current and prospective English language needs and problem areas (items 42-111), and a final section dealing with language attitudes and attitudes towards the project (items 112-127).

The questionnaire was translated into Chinese and, after Professor Yang had explained the goals of the project to the student leaders of each department in the sophomore and senior classes of the National Central University (NCU), copies of the questionnaire were distributed to all members of the student body in those two classes of the university, as well as to all members of the faculty in each of the six science and technology departments. Questionnaires were also distributed to students engaged in intensive or semi-intensive English language training at the private ELS Language Center in Taipei (ELS), where the Project Consultant was Director at the time, as well as to all full-time students engaged in intensive English language training at the government-supported Language Center, Taipei (LC). Whereas the students at the ELS school represented a wide range of backgrounds and interests, it should be pointed out that all of the LC students tested were preparing to receive technical training in the United States at the completion of their language program. Of the three groups tested, therefore, it is most likely this last group which best represents the opinion of the professional scientists, engineers and technicians in the country.

3. Analysis of Findings.

A detailed analysis of the results of our Diagnostic Questionnaire has provided us with abundant information regarding the nature of our subject sample, their previous English language training, their assessment of actual needs in EST, and their general attitudes towards English language training. These results are discussed below and cross-referenced by the original items on the questionnaire (denoted by "Q").

3.1. Description of the Subject Sample.

Completed questionnaires were returned by a total of 547 subjects, of which 376 represented the NCU (including 30 members of the university faculty or research scientists), 118 the ELS Language Center, and 53 the Language Center. Over 70% of our subjects classified themselves as students of some kind and less than 20% as scientists, engineers or technicians (Q6), but a breakdown analysis of the student population revealed that well over half of these were majoring in a scientific or technical field. Thus a little over 60% of our full sample could be regarded as being either active or prospective members of the scientific or technical community.

Our subjects were overwhelmingly Taiwan-born (Q9), nationals of the R.O.C. (Q10), monolingual Chinese speakers (Q11), and supervised by a Chinese national (Q8). Over half spoke Taiwanese as their native dialect, although nearly another third claimed Mandarin (Q12). Virtually all, of course, were educated in Mandarin.

3.2. English Language Background.

Over 85% of our subjects had at least six years of English language study in public school or at the university level, and 98% had at least four years (Q13). Outside of the public school, self-study was by far the most common form of supplementary English language training (Q14-19), and only about 15% of our subjects had frequent contact with native speakers of English (Q20). Though only a mere 4% had spent at least six months in an English-speaking country (Q21), about 60% had taken courses with English as the medium of instruction (most likely courses in the English language itself: (Q22).

The ELS group was far and away the one which most used English, both outside of and at work or school (Q33-34), though even for that group, the use of English constituted less than 5% of total language use for almost half of the subjects at work or school, and for the vast majority elsewhere.

On the question of the extent to which their English language training was related to professional or academic needs (Q37), there was a wide range of opinions expressed. Overall, the NCU group seemed to be the one most satisfied on this score, with over one fourth expressing the view that most of the training they had received was relevant, but the general level of satisfaction throughout was generally quite low.

3.3 Assessment of English Language Needs.

All groups rated writing as the least important of the four basic skills (Q42-45), but there were considerable differences of opinion expressed with regard to the other three: reading was the most important for the NCU group and speaking for the ELS group, but reading, listening and speaking were all rated about equally by the LC group.

All groups agreed that a good knowledge of English was "very important" to their occupation, profession or field of study (Q62), and over 90% felt that English should be studied by all students of science and technology in the country. A clear majority also expressed the view that a knowledge of English is probably more valuable to students of science and technology than to students in other fields (Q64), and over 80% would like to see English language instruction more closely geared to occupational or academic needs (Q66). Only 14%, however, think that students of science and technology receive English language training which is adequate for their needs (Q65), and for the LC group this figure is a mere 2% ! The vast majority also see at least some value in taking courses in their own country with English as the medium of instruction (Q67), and almost 90% say that they would take such a course if they could (Q68). Taken together, these findings clearly indicate a severe, almost desperate need for improved and specialized EST instruction in the country, if our subject sample can be accepted as in any way representative.

Despite the heavy need our subjects showed for a good knowledge of English at work or school, few had much interest in or use for English apart from this (Q79-82) and most only rarely experienced any difficulties in their private or social life as the result of any English language deficiencies (Q119).

The groups differ radically, however, with respect to the amount of reading they do: while nearly half of the NCU subjects read English at work or school almost daily, about the same proportion of the LC subjects do so only about once a month, while the ELS group consists of subjects with greatly varied reading habits (Q102). Textbooks and the like, however, predominate as the prime reading material for all groups (Q94-101). Very little writing is done in English by any of the groups (Q111), apart from occasional outlines, summaries or notes (Q103-110), consistent with the finding, already noted, that our subjects construe the writing skill as the least important of the four basic language skills, at least as far as EST is concerned.

3.4 Language and Other Attitudes.

Over 98% of our subjects expressed the wish that they knew English better than they do (Q117). and about 40% further maintained that their deficiencies in English cause them almost daily difficulties in their work or studies (Q118).

From a purely pragmatic standpoint, over 90% of the subjects in all three groups saw a clear occupational benefit in having a good knowledge of English (Q120), and over half in all groups would be willing to spend as much as 1-3 hours per day in the effort to improve their English language skills (Q121).

The main reason for this great enthusiasm to learn English, at least, is not difficult to discover. Despite the fact that our Chinese subjects proved to be no less ethnocentric than the rest of us, in that the majority regarded Chinese as definitely superior to English as a tool "for the clear and precise expression of ideas" (Q122), from 50-60% of the subjects in all three groups of our sample nonetheless ranked the English language as generally more useful in their studies or work than their own language (Q123), and more than three-quarters of all groups found that English provided them with the greater access to information in their field (cf. Smithies, 1976, p. 122; Q124). Even further, a full 60% of our sample also concur that English would make "the best universal international language" (Q125). There can be no doubt that the vast majority of our subjects are convinced that they need to know English, that English is especially important to them in the scientific and technical fields, and that the English language training which they have so far received has proved inadequate to this need. There can be thus be little doubt that further research in EST is definitely called for, just as our own project was regarded as worth while by almost 90% of our subjects, about the same proportion who wished to read our final report (Q126-127).

4. Recommendations for Further Research.

It is clear that our small project has provided only a start for the kind of thorough research that will ultimately be required if EST language training is to rise much above its current, generally unsatisfactory level. Our research does, however, provide at least a few fairly strong indicators of the directions which these future efforts might reasonably and profitably take.

4.1. Recommendation 1: To Continue the Diagnostic Testing of Professional Scientists and Engineers

Our diagnostic questionnarie has provided us with a number of interesting and suggestive findings, as discussed in the preceding section.

By and large, all of the items and categories for interrogation came from us, the investigators, and virtually none from the subjects themselves. It is hardly reasonable to suppose that the collective opinions of two or three people could possibly anticipate all of the important areas in which information would be required in order for an optimally effective EST program to be devised. In future research, therefore, the survey approach might very usefully be supplemented with an alternative which seeks to elicit from subjects not merely answers to some preordained set of questions, but also many of the questions themselves.

4.2. Recommendation 2: To Isolate the Specific Problem Areas in Representative Scientific Texts

In addition to the careful inspection of source materials for the identification of common surface structure patterns and the functions which they serve, it is also necessary to pinpoint those specific problem areas which are giving students the most difficulty. There is no point in developing special pedagogical materials for EST, if the end result is merely to teach something which students already know. From the standpoint of an applied EST methodology, the most important structures must be taken to be those which cause the most troublesome difficulties, no matter how obscure they may seem linguistically or how rare statistically. We must meet the need where the need exists, which may not necessarily be the same place where the solutions are the easiest or the most obvious.

4.3. Recommendation 3: To Supplement Reading Exercises with "Communication" Drills

The majority of our subjects seemed to be torn between two conflicting motives: the recognition that reading is the skill that provides them with their main access to information in their field, and the conviction that all of the basic skills should receive at least some attention in the curriculum. Speaking and listening skills were the ones which were generally rated not only as the ones most in need of improvement, but also the ones which our subjects most wished to improve. This suggests that a fully satisfactory program, at least from a motivational standpoint, cannot afford to concentrate exclusively on reading, but must also attempt, at the very least, to develop some rudimentary oral-aural skills, as well.

We hope that this brief discussion of our experiance will prove helpful to others engaged in similar work.

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SITUATIONS AND E.S.P.

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An E.S.P. conference report (Mackay 1973) identified some interesting directions for current work. The conference distinguished not only between fields of professional and technical activity (e.g. business management, medicine) but also, within a field, between tasks (e.g. within the field of medicine, interviewing patients, diagnosing) and modes of communication (e.g. written reports, oral reporting, specialist discussion, instructional talks.) This was felt to be essential for defining objectives in teaching languages for special purposes. Consequently, it was emphasized that research in E.S.P. should be "of a dual nature, enabling text-based analyses to be complemented by socio-linguistic investigations of the relations between characteristic linguistic features and the various tasks and their associated modes within a given field of activity." (ibid pg. 281) One good research strategy, therefore, would be to hold field of activity constant and to look at variation in task and mode (which I would group together under the heading of 'genre'.) It is important to note that to do this one has to go beyond currently used linguistic concepts; beyond cohesion, because it deals more with the relation between sentences in a text than with the relation between a text and a field of activity, and beyond speech-act theory, which examines the relation between an utterance and certain parts of its non-verbal context but which does not presently reveal much about the structure of extended discourse. A useful place to start is the place where non-verbal action is of highest importance: the humble case of practical action dialogues in situational or survival courses (cf Mohan 1977).

A situational course (e.g. a phrase book) is organized by topics (e.g. Shopping) which are in fact fields of activity in their most mundane aspect. A topic covers some representative situations (e.g. shopping for food, shopping for clothes) and a situation is often exemplified by a dialogue. The situations chosen are typically oral, face-to-face, and oriented to action (e.g. a purchase is made). It is not generally realized that these basic situational dialogues provide a natural and principled point of departure for more complex discourses.

Consider the case of a basic situational dialogue concerning shopping for clothes in a department store. Because a typical situation includes participants, actions, objects and a setting, and because any or all of these can be described, descriptive discourse can be created, e.g. a report could be written describing the scene. Because a typical situation is a series of events and actions (linguistic and non-linguistic) on a time-line, and because the whole series or a part of it, can be narrated, a discourse of temporal and logical sequence can be produced, e.g. the story of the situation can be told. Because a typical situation includes intentional actions which spring from a decision derived from a decision situation, and because decision situations can be discussed, a decision-making discourse can arise, e.g. shopper and clerk can debate the merits of a potential purchase. Finally, because a recurrent social situation assumes general knowledge about that type of situation on the part of the participants, and because such general knowledge can always be stated, there is the possibility of a general or expository discourse, e.g. the clerk can explain possible payment procedures to the shopper. (N.B. more accurately, particular-general is a dimension of the other three types; they can be less or more general. So, generalization discourse is a blend of the other three types at their most general.)

Ranged around the basic situation and its simple action dialogue, then, we have discourses of description, sequence, decision-making and generalization (which can be written or spoken, dialogue or monologue). Of course, these four types of discourse are very like the four types of discourse so dear to the teacher of composition: description, narration, exposition and argumentation. The difference, however, is that my four types derive from necessary elements of they typical situation. This relates them to simple practical dialogues and shows how they can be verbalizations of unstated aspects of the basic situation, i.e. of understandings which are part of the shopping field of activity. Notice that the research strategy mentioned at the outset has been followed: the field of activity has remained constant while variations in genre have been explored. Correlated variations in structure, semantic notions, and speech acts are suggested in Mohan (1977).

Why would someone want to verbalize an unstated aspect of a basic situation? The most favourable case is where the addressee is a participant who needs the information in order to play his part in the situation, in order to carry the situation forward. Thus the clerk might explain methods of payment so that the shopper can decide if she can buy or not. Answering this question turns out to be a fruitful way to explore the connections between action dialogues and related discourses. In Mohan (1975) I explain some connections, using the concepts of rational action and of the context-dependence of utterances in combination with speech-act theory — necessary theoretical underpinnings, in my view.

How does all this relate to E.S.P.? The basic situation/discourse type pattern can be applied to rather practical E.S.P. materials. In 'The Department Store' (Margolis 1971) the basic situation — the centre of this field of activity — is again the shopping transaction and there are several sales action dialogues. Much of the rest of the book consists of generalization discourses, explicating various aspects of the sales transaction, e.g. how the sales clerk should behave, classifying customers, dealing with accounts and payment, sales and reductions, security, delivery, etc. These are often motivated by being dialogues between a trainee and a staff person. In 'Medicine, Bk. 1' (E.L.S. 1966), the basic situation is the medical treatment of the patient but, surprisingly, there are no examples of simple action dialogue for this situation. The discourses provided are mainly of two types: descriptive discourses, i.e. diagnostic interviews between doctor and patient, where the patient describes his condition, often with narrative elements (his medical history); and decision-making discourses, i.e. consultations between intern and resident in which the diagnosis and treatment of the patient is discussed. Both kinds of discourse explicate elements of knowledge and decision that are an essential part of the treatment situation.

Can the pattern be extended to more abstract E.S.P. materials? Textbook material (e.g. medical or engineering textbooks) provides the general and abstract background to action situations, covering knowledge which is necessary to be an expert participant in those situations. It can be related to the discourse types at their most general. Each discourse type consists of various 'rhetorical categories', some of which are more general than others. With greater generality, descriptive discourse exchanges identifying descriptions and comparison and contrast for definition and classification; sequence discourse moves from chronology to causal laws and generalizations' decision-making switches from one-shot decisions to procedure and policy, general recommendations and rules. The 'English in Focus' series (Allen & Widdowson 1974, etc.) can be seen as teaching the interpretation of textbook material in different fields of activity. Appropriately enough, classification and definition are early topics in the books in the series, often followed later by laws and generalizations. Recommendations and rules make their appearance in the volume on 'Workshop Practice'. The more general rhetorical categories thus form an important part of the syllabus underlying the series.

Although each volume in an E.S.P. series usually deals with a *different* field of activity, the series often has a *common* format and structure. I suggest that this commonality is based, to a considerable extent, on similarities in genre across the different fields of activity, and that this gives a rough indication of the place and importance of genre in E.S.P.

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Adapting Technical Writing Classes to Women

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Because few women enroll in the prestigious professional faculties at U.B.C. (they form about 1% of engineering; 10% of forestry, law, medicine, dentistry; 20% of agriculture, commerce; though 50% of pharmacy) our introductory technical writing course tries to encourage women to enter these masculine faculties and trains them in skills necessary for success there.

We have two basic problems. Since we insist on mixed classes, we often face opposition from the professional faculties who, as proud specialists, want the tech writing teacher to come over to them and adapt the course just to their students, and dislike releasing them to classes of men and women from all faculties. We say, left alone in their own fields with their own jargon, such students graduate into a company ill prepared to communicate with their varying co-workers. Our tech writing is the only class which insists they get along with women, words and other professionals, so the administrative principle we established to help women helps men students, too.

Finding suitable teaching materials is the second problem. Leading texts, as an instance, have usually been written by men from engineering schools, so primarily serve students in the physical sciences and assume these are male. We have to create assignments for mixed classes. For example, we insist all students learn how to use commerce journals like the *Business Periodicals Index* and the *Journal of Economic Literature* as well as the journals in their own fields because every professional student, whatever the degree, essentially enters a business; but particularly because woman, who have the sparsest backgrounds and the fewest opportunities to mix with businessmen, can at least master the tools of library research to keep up with business affairs.

We begin the course with the typical how-to-find-a-job unit covering application forms, resumes, letters and interviews. First we stress the importance of summer jobs. Women have to get out and compete even in pharmacy these days since, wherever there's a surplus of applicants, personnel officers choose men. Before graduation, every women needs a work record that answers every personnel officer's questions for young professionals and future managers: "Can you work with men?" "Can you take charge of men?"

For advice and encouragement we get the men in class to report where they worked in summer, how they applied, what the job paid and what its working conditions were. Then we require all students actually to apply for next summer's job and give no grade for the application unit until they submit one employer's reply, whether positive or negative doesn't matter. This requirement benefits women students by forcing them to do as men do, and as long as one girl in class wins a high paying job typically held by a man--say as a lifeguard or truckdriver--all are converted.

Even for a summer job, an applicant rarely wins an interview without a well-written application form, resume and letter. All students are incredibly naive about these documents, but women especially must be warned, for instance, to regard all items on a company's form as trick questions. So, when asked which location they wish to work in, all women should maintain they'll go anywhere for a job with the company and then ask to go as far away from home as possible to create a work record which proves they're as flexible in moving as men.

We also adapt the technical report, our largest assignment, by demanding it arise from a practical problem a student can solve without using expertise gained in a professional faculty, and again, help as many men as we do women. By "practical" we mean experience the student has already had which required her to get her hands on material and equipment, while working in summer or at a hobby. She now analyses this experience to find a problem she did in fact solve or knows can be solved with simple changes in procedure or equipment. Even in menial jobs, our women have found interesting and often important problems like: "Unsanitary Practices in the Maternity Nursery, X Hospital" and "Improving the Hiring and Training Techniques of a MacDonald's Restaurant." Every firm hires graduates with different degrees; they all rub shoulders in the same offices and face this simple, non-specialized kind of report in the first years. We use it to show women they can compete with men on an equal footing in class and ultimately in the largest company.

Lastly, we call on those strengths women have which they don't realize are professionably valuable. Generally followers in menial positions, women have to adjust to the wishes of others and explain carefully if they want anything, so they are better at practical communication than men. No one rejects commerce jargon faster--"the market is bullish and the economy heating up with a few downward trends"--than those sharp pharmacy girls who are so conscientious about simple, exact communication with patients using medicine. So women can quickly become the best stylists in class. Then we get them to apply their sensitivity in human relations to that cardinal principle of all tech writing assignments, adaptation to different audiences. Be it memo, letter or report, engineers write to other engineers or laborers or householders. It's the women who can become the best tech writers.

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BUSINESS ENGLISH AT COLLEGE LEVEL

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When it was first proposed in 1972 that *L'anglais des affaires* (Business English) be offered at the College Bois-de-Boulogne, the English Department was faced with certain initial difficulties. These included the selection of texts and materials, the identification of student needs and an appropriate methodology. Our clientele for this course was expected to consist of students in Commerce and in Secretarial Sciences. There are, as well, some students planning to specialize in translation at the university.

It seemed reasonable to proceed on the assumption that in a "content" English course, as opposed to one which stressed general communication skills, we would require prior knowledge by students of specific content. We thus met with the Administration and Secretarial Departments in order to determine what courses and material students were there receiving so that we might better coordinate and complement their efforts and, at the same time, identify student needs. With the help of these departments, we chose certain thematic areas for study and it was then decided to offer two separate courses for the Commerce and secretarial students. This paper will describe the course now offered to the Commerce and other non-secretarial students.

It is important to stress that student needs were thus determined by the French language Departments in which they were majoring as well as by certain facts of life in the Canadian or Qúebec context. Should these students enter the work market immediately upon graduating from college, they will require a familiarity with the basic terms of Accounting, Marketing, etc. Should they continue on to university studies in these subjects at the French institutions, text books are quite often in English. As well as, a fair number of our studnts attend the English universities (McGill, Concordia, ...); their need for specialized English vocabulary is even more pressing.

Students begin the Business English course after having completed a minimum of three consecutive general English courses or after having tested at the appropriate level of proficiency. In most cases, they choose to take four courses prior to Business English. These courses stress general proficiency in basic verbal and written skills. Most of our students are Montrealers. While far from bilingual, they enter the college with a greater exposure to, and hence familarity with, English than a student who lives Trois-Riverères, for example, and who attends a cegep outside the metropolitan area of Montreal. It has been our experience that these students are relatively fluent in English and that, certainly, by the time they enter Business English, we can largely dispense with the explicit study, of general grammar, and turn to specific technical vocabulary and structures. Proficiency varies however, and groups are formed according to the proficiency each student demonstrates on testing.

We considered some possible texts for this course. Some were rejected because, in our opinion, they stressed written English more than our needs survey had indicated was appropriate or because they were written primarily for mother tongue English speakers; others were rejected because the content, rather than the method, was not entirely suitable within a Canadian context.

Eventually, it was decided to prepare our own *cahier-maison* to be printed by the college and distributed to the students. This material has been under revision for some five years and still is far from perfect.

We proceeded as follows: in conjunction with the two departments mentioned, thematic areas were selected: Applying for a Job, Advertising and Marketing, Economics and Labour, Banking, Accounting and the Stock Market, The Computer, Telephone Usage. Our teaching methodology is as follows. Classes are devoted to oral activities, discussions, debates, questions on texts, films, videos of T.V. programmes. Reading assignments consist of articles from newspapers or texts that we have prepared. Written work is done at home and can involve answers to text questions, the writing of C.V.s, the filling out of a job application form, the writing of a job ad or of a marketing ad, etc. Writing serves to reinforce oral activities. Students are required not only to participate in class discussions using the vocabulary and structures learned but to give oral presentations during the session. Such presentations involve the role playing in pairs of a job interview. These last approximately fifteen minutes and are recorded on video tape by the students with the help of the Audio-Visual Department. Tapes are then viewed in class and the students can participate in self-evaluation and critique. They receive my list of corrections and criticisms prior to watching their work in class. (I preview all videos.) Students are evaluated on the basis of correct use of vocabulary (e.g. general: interested in doing, capable of doing; education vocabulary" B.A., Major in; business vocabulary: fringe benefits, working conditions, union, on the job taining, etc.) plus correct use of verb tenses (I've studied Commerce for three years; last year I studied Accounting, now I'm taking a Finance course; etc.). This, in particular, has served as a highly successful excercise for the meaningful performance of structures and vocabulary learned during the course.

Students find this course very practical and report that it has helped them both at the university level and in the job market.

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ENGLISH FOR SURVIVAL

For every immigrant enrolled in an E.S.L. Program, there are probably ten others who never have, and most likely never will, set foot inside a classroom. The reasons for absence are numerous; long hours, shift-work, tiredness, family responsibilities, age, lack of "schooling" are among the most common ones mentioned. An attempt to provide these "absentees" with some means whereby they could communicate with English-speaking Canada resulted in the compliation of a 504-page Spanish/English Phrase Book, entitled FRASES EN INGLES PARA DEFENDERSE (English Phrases for Survival). It was written by Lillian Butovsky and John McHugh of the Citizenship Branch of the Ministry of Culture of Recreation, Toronto, Ontario, Canada.

The book is divided into two main parts. Part 1 gives the immigrant the words and phrases he is likely to need or want to use in his everyday contacts with English-speaking Canadians, language for giving personal information, greeting people, telling time, commenting on the weather, etc. Part 2 presents the phrases for 23 specific situation, such as work, public transport, visit to the doctor, etc.

The simplest possible way of expressing oneself in authentic English was the criterion for the choice of language. The newcomers themselves stated their needs and guided us in the choice of situations. Language help for situations involving health was mentioned very frequently and resulted in an 83-page medical section. The eventual length was questioned and serious consideration was given to omitting it in future editions. However, medical practitioners not only suggested its retention, they also encouraged us to produce this medical section as a separate publication.[1]

The book also contains self-study and orientation material. The latter gives the newcomer the basic information he is likely to need about the situation treated. For example, in the medical section, the Ontario government health insurance plan (OHIP) is explained and information about joining, fees, etc. is given. To aid self-study, there are two short introductory chapters on grammar and pronunciation written by Carlos Yorio of the University of Toronto. These two chapters, of course, can be read as separate entities but the grammar chapter has also been organized as a reference source for the student studying on his own. As the student works his way through Part 1, he is referred back to the grammar section for a more complete explanation of the phrase he has just practised.

There are seven cassettes to accompany the course: the first is an oral presentation (in Spanish and English) of the chapter on pronunciation; the remaining six are in Egnlish only and provide the student with an opportunity to hear and practise the words and phrases in the book. In taping a distinction was made between those sentences the student will merely need to understand and those he will need to produce. The purely comprehension items are said without any pause for repetition.

The book ($2.50) and the seven cassettes ($7.50) can be purchased separately, if desired, from the Ontario Government Bookstore.

A pilot program was organized to evaluate the the usefulness of the phrase book as a self-study tool. Eighty students partcipated in a three-month program. Each student was given a phrase book, the seven cassettes and an explanation of the purpose of the program and how they could help. A spot survey of the students was made during the first two months and a complete one in the last month. The findings confirmed something already suspected. The ability to benefit from this kind of self-study hinged on the strength of motivation and on an adequate learning experience to guide and help. Although no testing was undertaken, each student was contacted and asked to give his personal evaluation. Eight students completed the book and expressed great satisfaction. Twenty-one students completed Part 1 and some sections in Part 2: they expressed satisfaction but with reservations. Their zeal and enthusiasm seemed to diminish in direct proportion to the problems they were not able to resolve without help. The remaining students struggled through Part 1 and then became apologetic drop-outs.

The message was quite clear. A book, cassettes and a desire to learn English were not enough. This realization produced a follow-up program. The approach chosen was the provision of bilingual lesson leaflets and the recruitment of English-speaking telephone tutors. This approach was chosen to remove or at least minimize, the very real obstacles to learning faced by very many newcomers to Canada.

Very briefly, the Lesson Leaflets attempt to present E.S.L. instruction in bite-size pieces. Each leaflet contains the student's work for one week, divided into four 15 minute sessions. DAY 1 is a preparation session: the student is asked to read and try to understand the material he will be practising with his telephone tutor. DAY 2 is the oral practise session by phone with his English-speaking friend. DAY 3 is devoted to reading brief explanations of essential grammar and pronunciation points. DAY 4 the student is asked to practise the material taught by providing him with graded exercises.

There are 35 Lesson Leaflets plus a test leaflet after every fouth lesson. Each leaflet tries to isolate a common situation in which a newcomer would need English to communicate in an adequate way. The situation is presented in a cartoon illustrated dialogue format. The student is encouraged to make full use of the phrase book by practising with his English-speaking friend the phrases in the book which deal with the situation contained in the lesson. The lesson leaflets also tell the student where to look in the grammar and pronunciation chapters if he wants more information about the structure or sound of it, are introduced and practised and every leaflet tries to persuade the student to practise what he he has learned with his friend as a guide.

The name of the program is "Help a friend learn English". The name was chosen to give a little push towards multicultural understanding. We hope that the program will promote this and at the same time go some way to meeting and solving the problems confronting the adult language-learner, problems which prevent him from making the progress he deserves.

Lillian Butovsky
Ministry of Culture and Recreation
Ontario

NOTE: For free copies of the Medical Section of the phrase book, write to:

Lillian Butovsky,
Language Training Advisor,
Ministry of Culture and Recreation,
Citizenship Branch,
5th Floor
77 Bloor Street West
Toronto, Ontario
M7A 2R9

A Report on the E S P Operation at Concordia University

The Curriculum Development Unit (Hereafter CDU) was established on December 1st 1976 by Michael H. Long who is now at UCLA. It comprises one full time member, the director, and between four to six part-time members who are also teaching on the Continuing Education ESL of Concordia University. The director of the unit is also Director of Studies of this programme.

One of the first tasks that was carried out by the CDU was a survey of all of the students who were enrolled in the day and evening divisions of the programme. The table below is a general breakdown of how our student population is divided. The three main conclusions that come out of this breakdown are that most day students are university bound (EAP) finds that the majority of evening students are studying English for occupational purposes (EOP).

	EAP	EOP	EGP	TOTAL
DAY	180	10	46	236
EVENING	33	65	16	114
TOTAL	213	75	62	350

Finally, students of English for general purposes (EGP) are evenly distributed throughout the programme. The basic materials used in our programme put a very heavy emphasis on an Oral/Aural approach. While this may be adequate for the needs of members of the community who are learning English for general purposes, it can hardly fulfill the needs of a university bound student population. It was therefore decided to design a set of EAP materials to meet the language requirements of this group of students. We first developed a reading comphrension course which is now virtually ready except for a few editorial adjustments. A writing and a listening comprehension course are presently being developed.

One of the initial problems encountered was finding a common denominator for our EAP population which included members of 25 different language backgrounds divided into 71 different areas of study. It was finally decided to divide our themes into three main areas of interest, i.e. science/engineering, social sciences and Canada. The two former categories were selected because they included most of our students who were new in the country and wished to understand its history and institutions. Finally, the reading passages were similar in form, register and content to those found in a first year university school.

As far as possible the development of reading units was notionally based. by so doing, we wanted to avoid developing materials that are so centered around a particular language item that they have little in common with the target discourse for which they are supposedly preparing the student. Exercises were developed according to the types suggested by Allen and Widdowson, Mackay and Mountford, etc. One of the major changes that was brought into the reading materials was to make reading passages significantly longer than those normally encountered in ESL textbooks, We thus hoped to provide an alternative to "interpretation de textes" (Mackay and Mountford). While a short text may always be analyzed and dissected in a process in which every word is systematically explained, it would be quite difficult, if not impossible to treat a longer passage (e.g. 1200 words) in such a way. Finally, although this may be stating the obvious, a reading course should expose students to a great deal of reading, which unfortunately, is often not the case.

Regarding the EOP component of our programme, it proved virtually impossible to develop EOP courses opened to the general public. The student population surveyed included representatives of 29 widely different occupations ranging from religious ministry to diplomacy! The university does, however, have EOP programmes. but they are operated on a contractual basis with the interested firms. For example, we are presently teaching English to factory workers for a large food company in the area of Montreal.

Finally, as a conclusion to this short presentation, it should be mentioned that two formal reports, one on a needs identification survey and one on students' response to the materials, as well as additional information not included in the reports or in the present article can be obtained by writing to the author.

Andre Cyr
Director of Studies
Continuing Education E S L
Concordia University

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    Public Service Commission, Language Bureau, 460 O'Connor Street, Ottawa, Ontario. K1A 0M7. ESL Materials CONTACT CANADA. A complete catalogue of all the ESL materials produced by the P.S.C., a branch of the Canadian Federal Government, for general as well as for specific purposes.

Canadian Papers Available Con't.

On-going research and development--reports available soon.

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22. Spada, Nina. Concordia University. The Use of Graphs and Tables in Scientific Literature: A Pilot Study. 1977.

ESP BOOKS

23. Butovsky, L. and McHugh, J. Frases En Ingles Para Defenderse ($2.50) and the seven cassettes ($7.50) plus 7% sales tax) Write to:
Government Services
Publication Centre
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Queen's Park
Toronto, Ontario
M7A 1N8

A cheque made out to the Treasurer of Ontario should accompany any order. For personal shopping only, the Phrase Book and cassettes can be obtained from:
The Ontario Government Book Store
880 Bay Street
Toronto

24. Mackay, Ronald and Mountford, Alan (eds.) English for Specific Purposes: a case study approach. Applied Linguistics and Language Study Series, Longman, available December 1977.

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Issue #9
December, 1977

ENGLISH
FOR
SCIENCE AND TECHNOLOGY

A Newsletter sponsored by AID/NAFSA Liason Committee

Karl Drobnic, Editor
ELI AdS A100

Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

On function of a newsletter such as this is to point out possible pitfalls that come to the attention of an editor. I am therefore taking the liberty of juxtaposing a brief report on a technical English project at Oregon Institute of Technology with an excerpt from Henry Widdowson's article "The Communicative Approach and Its Application" (ENGLISH FOR SPECIFIC PURPOSES, The British Council, Bogota, Colombia).

The juxtaposition of the report and the excerpt is intended to point out the danger of focusing a language training program too narrowly. Students have expectations as well as academic needs, and when their English is scant to begin with, they have language needs other than what is needed to succeed in the classroom.

The following report is from Bob DeRosier, Oregon Institute of Technology:

DIESEL ENGLISH

> "Oregon Institute of Technology has a contract to teach six Arabians the essentials of Diesel operation and maintenance. The program, designed for nine months, includes courses in Electricity, Bendix Fuel Systems, Theory of Internal Combustion Engines, and Introduction to Welding and Machining. Because their English was sparse, they also took an English course to correlate the technology with the language. Mr. Bob DeRosier, the English instructor, adjusted the vocabulary and the lessons to a Diesel basis.
>
> The reaction of the Arabians was quick and emphatic. In the labs and in the theory classes, they would study Diesel Technology; in the language class they wanted to study English—the English of the store, of the street, of the Student Union.
>
> Their Diesel-based English performance was desultory. When Mr. DeRosier switched to functional phrases and living situations, the performance improved and interest increased.
>
> Except for occasional forays into the technical vocabulary, the class now dwells on non-technical matters."

There are numerous possible reasons as to why Diesel-based English resulted in a desultory performance. The point here is that performance was poor and that it improved when the program was re-oriented to survival-based English, another branch of ESP. Widdowson comments on the gap between appearance and reality:

> "The best way may not be what appears to be the most direct route, although one is generally inclined to think that it is. . . .it may be that the students could be more effectively prepared by a course which developed more general communicative strategies over a wider range of language use, which concentrated not so much on direct teaching as on favorable set towards language learning. I am not saying, please note, that the direct route is necessarily the wrong one but only that it is not necessarily the right one."

The identification of desired terminal language behavior will not always mean teaching immediately to those needs. The route from needs specification to terminal language behavior can be devious terrain, and Widdowson's ariticle is an excellent treatment of the issue.

* * * * * *

TEACHING OUTLINING TO
THE ESP STUDENT

James B. Herbolich,
Kuwait University

Outlining has long been recognized as a skill that university level EFL students should master in order to organize and comprehend information gained through reading textbooks. Indeed, it would be a rare language center where one did not find a unit of a study skills course devoted to outlining for the EFL student, but, for the most part, outlining as a skill for the engineering student has largely been ignored in ESP textbooks.[1] This may be the result of ESP textbook writers believing that engineering articles do not lend themselves to the basic outline form. However, in teaching a reading skills class as part of an intensive English course for engineering students at Kuwait University, I have found that engineering articles are "outlineable" and that teaching students to outline aids them in organizing and comprehending the important facts of a reading.

Yorkey (1970) defines an outline as "an organized list of related items or ideas".[2] With this definition in mind, I began teaching topic outlining and the following is a brief discussion of a technique I have found effective with engineering students.

Phase I: An explanation of "what is an outline" (1-one hour class) First, a list is written on the board[3], such as:

HCl
Salt
$NaOH$
Acids
HNO_3
Bases
$NaCl$
KOH
H_2SO_4
Alkali

When students are asked about the list, the answers usually given are "terms from chemistry", or "formulae" or "solutions". The students are then asked of ways to organize the contents of the list. Various suggestions given are alphabetical ordering, numerical arrangement or breaking the list into smaller lists. Using the third suggestion results in:

Acids	Bases	Salt
HCl	$NaOH$	$NaCl$
HNO_3	KOH	
H_2SO_4	Alkali	

Before arranging the three above lists into an outline, a skeleton outline is written on the board, as such:

I. ____________________
  A. ________________
  B. ________________
  C. ________________
II. ____________________
  A. ________________
  B. ________________
    1. ____________
III. ____________________
  A. ________________

Using the skeleton outline, the students are introduced to the terms: "Main headings", "Roman numerals", "Arabic numerals", "indent", and "sub-headings." After discussing the skeleton outline, the students are quite capable of filling in the outline using the three lists, which gives the following:

I. Acids
  A. HCl
  B. HNO_3
  C. H_2SO_4
II. Bases
  A. $NaOH$
  B. KOH
    1. Alkali
III. Salt
  A. $NaCl$

Phase II: Examination of a model topic outline. (1-one hour class)

After reviewing "what is an outline?", the students are given a short (1 page) reading entitled The Classification of Compounds, which discusses in three paragraphs acids, bases and salts. The students are reminded that a paragraph contains one main idea with supporting facts. Using the suggestions given by Harris (1966) for finding the main idea of a paragraph[4], the students are instructed to read the article and to write the main idea of each paragraph in the margin. After this task is completed, an oral discussion of each paragraph brings out the supporting facts for each main idea: "an acid is a compound of hydrogen", "a base turns red litmus blue", etc. The students are then given a model topic outline on the reading[5] and we discuss its organization. The following points are stressed:

1. Each paragraph contains a main idea which becomes a main heading—3 paragraphs = 3 main headings.
2. The supporting facts should be brief and, as much as possible, in the students' "own words" - not copied word for word from the reading.
3. A good outline will contain all the important supporting facts.

Phase III: Controlled outlining (4-one hour class periods)

For the next two or three weeks the students, after reading an article and jotting down the main ideas of the paragraphs, are required to complete a partially filled topic outline on the reading. The students are told that if they have culled all the important facts from a reading, then they should be able to answer any question on a reading using solely their outline. If they can answer easily from their outline, then they have produced a "correct" outline. To emphasize this point, the students answer multiple choice or true/false questions on the reading using their outlines.

Phase IV: Free Outlining (throughout the course)

To move from controlled outlining to free outlining (i.e. The students produce the outline form and supply all the items to the outline), the students must be convinced that outlining will help them in their future classes. Given the exam-orientation of our students, it is mentioned that throughout the semester, if a student has outlined reading assignments, then, when it is time for an examination, there will be no need to re-read all the assignments, but only to go over the outlines for they will contain the essence of the readings.

After doing three or four controlled outlines, the students are quite capable of producing outlines on their own. In fact, students have said that it is easier for them to produce a free outline than it is to complete my controlled outlines, which indicated to me that outlining is a personal skill - there is no one correct outline for a reading.

The free outlining is done as a homework assignment after a discussion of the main points of a reading. At the begining of class, I quickly check the outlines for (1) correct form; (2) enough supporting facts; and (3) briefness of expression. As in Phase III, the students are required to answer questions using their outlines; however, the questions usually entail writing complete, gramatical sentences as answers - in a sense, recreating parts of the reading from the outline.

By the end of the course, the students, hopefully, are convinced that outlining is a useful skill, not just a skill to learn in order to pass their English course. I have found this technique of teaching outlining effective because the students practise the skill throughout the semester, not as a one-week unit where outlining is forgotten soon after it is mentioned. Initially, outlining for the engineering student is difficult, but eventually the students quite easily recognize the important points of a reading. The resulting ability to pin-point the central points necessarily results in a "reduction of uncertainty" about the contents of a reading[6], which is a step towards complete reading comprehension.

NOTES

[1] Of the six ESP textbooks for engineering students listed in the bibliography, none contain a unit on outlinging.

[2] Richard C. Yorkey, Study Skills (New York: McGraw-Hill, Inc., 1970), p. 77.

[3] Since the reading skills class begins with readings in chemical engineering, the initial phase of the technique reflects this bias; however, any reading of classification will yield a list with which to begin outlining.

[4] David P. Harris, Reading Improvement Exercises for Students of English as a Second Language (Englewood Cliffs, New Hersey: Prentice-Hall, Inc., 1966) p. 54.

[5] This was suggested by a fellow teacher, Maureen O'Brien.

[6] Frank Smith, Understanding Reading (New York: Holt, Rinehart and Winston, Inc., 1971) p. 185.

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**Due to the fact that costs for the Canadian articles listed in the last issue of the Newsletter were omitted, we are publishing a bibliography of materials added to the Clearinghouse since September, 1977. In conjunction with Issue 5 (August), this will form a complete listing of all articles currently available from the Clearinghouse.

The articles listed below are available from the Clearinghouse on an "at cost" basis, which covers the cost of reproduction and mailing. No profit accrues to the Clearinghouse. Please make checks payable to : Oregon State University.

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7. ESPMENA Bulletin #5. English Language Servicing Unit, Faculty of Arts, University of Khartoum, Khartoum, The Sudan. Crofts, James, Phil Skeldon and John Swales, eds. Autumn, 1976. $1.00

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ABOUT THE NEWSLETTER

Circulation of the Newsletter continues to climb. Subscribership has topped 200 and the Newsletter circulates monthly to 21 countries. This ninth issue brings us 3/4ths of the way through the grant that established the EST project, and that support ends in March. We are currently exploring options for continuing the project after March. As the project at this point is close to being self-supporting, we are hoping to continue with only minor adjustments.

We continue to welcome contributions, but ask you to remember our Newsletter format. Six typewritten, double-spaced pages is about our limit for a Newsletter contribution. Longer articles are placed in the Clearinghouse and we either publish an abstract or an excerpt from the work.

WORKING PAPERS AVAILABLE

The 1974 edition of Working Papers in English for Science and Technology, by Selinker, Trimble, and Vroman and published by the College of Engineering U. of Washington, is now available in reprint from the Clearinghouse. This is a xerox copy without the original stiff covers and binding. See "Bibliography" for details.

Report Available in French

The following title is a 114 page (plus appendices) bound study that is available in French only. There is a service charge of $1.00 to cover costs, and those interested in receiving a copy should write directly to:

M. Jacques Fortin
Service de Recherche et Experimentation
College de Jonquiere
C.P. 340
Jonquiere, Quebec G7X 7W2
Canada

The title of the study is:

> "Etude de l'utilisation de l'anglais par les diplomes du secteur professional du Reseau collegial francophone, dans les communications au travail."

SPECIAL ESP ISSUE ANNOUNCED

The following announcement from MALS Journal arrived too late to be included in the previous issue of the newsletter. Therefore, the deadline for submitting articles may have passed—no date is mentioned in the letter; however, this special issue of the Journal should be of interest to our readership. The announcement is from C.J. Kennedy editor. His address is The University of Birmingham, PO Box 363, Birmingham B15 2TT, England.

Dear Sir;

I am the editor of the MALS Journal, the publication of the Midlands Association for Linguistic Studies, and organisation for teachers interested in Applied Linguistics.

Our next issue is to be devoted to English for Special Purposes and I should be grateful for contributions on aspects of the teaching/learning of ESP.

If you or your colleagues would like to submit and article, please let me know.

SUBSCRIPTIONS

Subscriptions continue to come in to the Newsletter. As we have only reprints available of the first three issues, we are asking that new subscribers consider their subscriptions beginning with Newsletter #4. New subscribers who would like reprints of numbers 1, 2, and 3 may enclose an extra $1.00 for those issues with their subscription. The reprints will come at printed matter rates and arrive somewhat later than subsequent issues.

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Issue #10
January, 1978

ENGLISH FOR SCIENCE AND TECHNOLOGY

A NEWSLETTER SPONSORED BY AID/NAFSA LIAISON COMMITTEE

Karl Drobnic, Editor
ELI AdS A100

Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

The 5th International Congress of Applied Linguistics has a section scheduled on Languages for Special Purposes. The Congress will be held at the University of Montreal and Concordia University, August 21-26, 1978. Registration fees prior to March 31 are $60 CAN, $80 CAN thereafter. Queries should be addressed to Jacques D. Girard; Secretary General of the 1978 AILA Congress; University of Montreal; Box 6128, Station "A"; Montreal (Quebec) Canada H3C 3J7.

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Arrangements are being made to produce a special issue of the Newsletter surveying EST/ESP in Mexico. We hope to have the issue coincide with the 1978 TESOL Conference in Mexico City, April 4-9. The Special Issue Editor will be M. Teresa Austria; Universidad de Las Americas; Apdo. Postal 100; Santa Catarina Martir; Puebla; Mexico.

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Deadline for submitting articles to the special ESP issue of the MALS Journal is mid-February. The issue will be out in late March. Those wishing to obtain copies or submit articles should check the last issue of the Newsletter for details.

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We received a note from England advising that the Bedford English Study Centre has been set up by the Oxford University Press and Colchester English Study Centre as the EST Centre for the group

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John Hitchcock of the English Language Center, Arya Mehr University of Technology forwarded the following brief on the November ESP Conference in Iran:

CONFERENCE REPORT

The Second Regional Conference in English for Special Purposes was held at the University of Isfahan, Iran from November 6th to 10th. The theme was "The Service Roles of English in Manpower Training." The conference was sponsored in association with the British Council and the Association of Professors of English in Iran.

In addition to plenary and large group papers, the chief focus of the conference was a series of working parties, each of which produced a consensus report. Working parties were divided into the following groups:

1. The Manpower Training Service Roles of English in School Systems
2. The Service Roles of English in University Studies
3. English in Engineering & Medical Education: Case Studies in Materials Design
4. The Service Roles of English in Industrial Organizations with special reference to the Oil and Petrochemical Industries
5. The Service Roles of English in Managerial, Clerical and Secretarial Training
6. Training Service English Teachers

Proceedings of the conference are not yet published, but for further information, please contact:

Mr. Miles Roddis, Director
The British Council
P.O. Box 28
Isfahan, Iran

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Science Activity and the Language Teacher

By R.H. Nolasco,
King Abdul Aziz University

The remarks in the article are drawn from experience on the Medical Programme of the Communications Skills in English Project, King Abdul Aziz University, Jeddah. Our brief is to establish basic scientific literacy for first year medical students. The students come from the elite of the Saudi school system and have done English in Secondary school. Even then, there is a considerable ability range both in language and science skills in our intake of 80+.

Our programme consists of an intensive phase of 200 hours (25 hours a week for 8 weeks) plus a further 200 hours spread over the year with the number of English classes being gradually reduced. Our science content is drawn from their Physics, Chemistry and Biology programmes, and sometimes, we stop and ask how far we are involved in science rather than language objectives and this problem of balance remains a central one for ESP programmes. A lot of the arguments put forward to date have been theoretical ones. In our case, the debate has been limited by the fact that we know what the students have to do and it has been a question of developing an effective methodology to help them achieve it. This article outlines one area in which Science teaching methodology can help us.

"Every subject has its own basic standard of literacy that must be achieved before meaningful progress can be made. No one can get far in studying a foreign language without learning the basic vocabulary. . . . Science has its own language, which sometimes is allowed to degenerate into jargon, usually because of an inability to use everyday English competently. The first requirement of science teaching is the establishment of basic scientific literacy. It is here that the greatest weaknesses in present methods of teaching science show themselves."

(R.J. Warner "Teaching Science - What is going wrong?" article in The New Scientist, 1977)

Are we teaching science or language? Here, in Jeddah as in other places where ESP is practiced the debate rages on. With increasing intolerance the "linguists" and "scientists" line up for battle. In between, reasonable men pride themselves on their sense of balance. Yet, having been involved in the debate now for some months it is strange how the fundamental point seems to have been missed. As Warner suggests, good science teaching involves a conscious attention to language. Science students often have language problems even in their L1 and a successful science teacher has to be able to deal effectively with these problems. In a second language situation the task becomes correspondingly harder but for years in the English Medium schools of the Far East, Africa and Turkey to name but a few areas, science teachers have been borrowing basic language teaching techniques in order to establish the basic scientific literacy mentioned above. It is only in recent years that linguists have become involved through the growth of the ESP industry.

This is a positive step as long as we do not consume our energies in a sterile debate for on a programme such as ours the science/language distinction is so blurred as to make debate meaningless. After all, the language our students learn is geared specifically for their consumer/producer roles as students of science in English. As such, the scientific context is taken for granted by even the most dyed in the wool "linguist". There is, however, more to obtaining scientific literacy than the operation of a limited number of sentence patterns with a scientific lexis. We have to pay attention to iconics and other non-linguistic devices. What is more, for the content to be made accessible let alone meaningful we have to deal not only with the language but the conceptual framework behind it. It may be disturbing but if we are teaching anything at all we are teaching both science and language. It is on this point of recognition of the inter-relationship of language and science that we have based much of the methodology of the Medical Programme here in Jeddah.

Furthermore, it is from this point that science and language teachers can begin to explore the problems of ESP and learn from each other. One piece of science teaching methodology we have adopted is the Science Activity. These activities are the kinds of things children "do" in courses such as the Nuffield of Scottish Education Board "Science For the Seventies" course. These consist basically of simple experiments which children do in order to verify or observe scientific principles. But what about the relevance of these for our first year university students?

The starting point for our methodology is the "situation", so beloved of EFL teachers for practice and teaching. For years we have struggled to bring the real world into the classroom through a multitude of devices ranging from role playing to funny hats. The very successful "Bellcrest File", "State Your Case", "Cue Cards" etc. are all examples of material where the situational approach has been linked to a functional approach in order to strike a balance between "La plume de ma tante est dans le jardin" and the apparent chaos of actual discourse. Ultimately, the student remains a step away from the situation where he has to use the language. In our case, it soon became apparent that one area where our students would use English to describe, report, ask questions, explain and so on was the science laboratory and that simple experimental acitvity where the number of variables is more easily controlled than in a full lab session offered us an ideal multi-purpose situation where students would use English in a real environment.

The next step was to set out a number of behavioural objectives. We decided that at the end of 8 weeks of our intensive phase (200 hours of English with 48 of that for Activities) students should be able to write a simple lab report under the following headings--Aim, Appartus or Equipment, Method/Procedure, Results/Observations, Conclusions. In addition they should be able to write a short paragraph in response to a specific question, reply to simple questions with a minimum of hesitation and error and finally ask questions.

From this it was relatively easy to produce a crude inventory of things they had to do in order to achieve the above. In this we included non-linguistic objectives, such as that they should construct and label graphs, tables, charts and diagrams. As such the activities are not only vehicles for language practice and grammar work. They are also a means of fulfilling science skills objectives.

Then we established a sequence. By accident as much as design the following emerged.

1. Activities involving simple measurements e.g. body measurements, Heart Beat Rate.
2. Activities again involving measurements but where a logical sequence is involved e.g. Measuring how a change in length and mass affects the periodic time of a pendulum.
3. Activities where rather than make a statement of results students had to describe what they had seen e.g. Surface Tension, Watching a candle burn etc.

There is a hierarchy of difficulty in reporting the above. In (1) the student response is a simple stative (my weight is X, my weight is Y) determined largely by the nature of the activity whereas in (3) as the observer he has to provide the internal structure and decide what is worth recording in a dynamic process. Worksheets or guiding questions can help the student at all stages and this forms a central part of the methodology.

The essence is extreme flexibility for the degree of control can vary from a very tight and structured one to one where the student is completely free. What one chooses is a function of ability as well as the stage reached.

For example take a simple experiment to verify Archimedes Principle. One group might get a work sheet which included - Take the solid body. Weight it in the air with the spring balance. What is its weight? Here, in order to report that phase of the activity the student simply has to change the imperative form to the past or even the past passive. Another group might simply be given a statement of Archimedes Principle, be told to design an experiment to verify it, to do it, and then write a report on it. Here the guidance might well be limited to prompting questions like "How many measurements do you have to take?"

In short the students go through a series of plateaux. Initially, with the help of the worksheet, they become familiar with the structure of a lab report and try to get their tense forms right. The next step is to remove some of the props and see that they have included all the relevant detail in a clear and economical fashion. Following this they are put into a position where they have to provide their own structure for an experience or design their own experiments.

At this stage, we are in a position to use their Medical Lab sessions as a basis for our work. We are now trying to work together to see if the Medical Staff can structure their practicals (they begin in week five) so that they do not ask the students to run before they can walk. After all their responsibility for establishing scientific literacy is a least as great as ours. A significant stage of development will have been reached when they have a similar crisis of identity in that they begin to ask if they are teaching language and not science.

Science Activities offer more than the basis for a report writing course. They create a considerable amount of classroom interaction between student/teacher and student/student. This provides for a lot of oral practice as students respond to questions as well as ask them. Usually, they can be made to frame their own answers. As this usually occurs at small group level, the kind of barrier to communication which affects shyer students is lessened. There is a corresponding increase in student talk time as they tend to initiate most of the discussion. The students also elicit a lot of vocabulary and seem to be able to recall these items better than words given to them in an artifical situation.

In addition, the Activities can form the departure point for reading, dictation and even language lab work. What they provide above all is a focal point and a common experience for communication.

It is the fact that students and teacher experience something together that makes Science Activity a more powerful tool for language teaching and practice than the isolated text - based sentence completion exercises of the structuralists. As such the methodology owes quite a lot to the humanist trend in language teaching where a lot of the structured pattern practice follows a communicative event. Indeed, the degree of manipulation of the learner is minimal as the students listen to a student response, correct each other and collectively internalise or repeat aloud a correct version without as much as a wave of the hand. The payoff is increased awareness of the need for grammatical correctness but more often than not the student is merely trying to hang on to science content that he finds interesting and meaningful. It is up to us to shift the focus to the language item when necessary. As the student is put squarely in the role of the producer rather than the manipulated manipulator of sentence patterns the problems of transfer are reduced.

The teacher carries a heavy responsibility for it is only he that can interpret the communicative problems of a group and thereby select areas to work on. After all, why waste time on things which they can do at the expense of those which they cannot. It is very much an "as and when" approach to grammar and language work but in a situation where students have had "rules" for six years a communicative approach emphasising the role of the student as a producer gives more satisfaction than a slow incremental one and adds to their motivation. In addition to this, students like to do things. In fact it is the doing of the activity that offers as much satisfaction as the content challenge. The latter is not to be underestimated. Students want to know "why" and the answer forms part of our objectives. However, coming as they do from an environment of classical book oriented science teaching, simple science activity is for most of our students a novel and pleasurable experience, as well as one in which they can learn. In fact their background means that many of the Science skills which these activities were originally intended to develop are in fact alien to them and by doing Science Activities we provide further support for the staff of the Medical Faculty.

Where does this leave us in the Science/Language debate? Two main points emerge:

1. Our students need to acquire the basic scientific literacy referred to at the beginning. This involves the clear and competent use of everyday English. Science Activity provides a basis for establishing it.
2. If we accept the above, then the experience of the science teacher in running labs, organizing equipment, designing experiments etc. is totally complementary to that of the language teacher and through cooperation we might arrive at work which has a pedagogical significance which extends beyond the boundaries of ESP.

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EDITOR'S NOTE

Dr. Concetta C. Greenfield, Director of the Translation and English Language Center at Carnegie-Mellon University, has forwarded the following description of the integration of scientific-technical materials into the English program there.

We cannot claim to do a pure EST program; what we basically have is an ESL program that can meet the needs of students learning English as a Second Language regardless of specific majors. However, we use in both level 1 and 2 materials with scientific-technical orientation:

Barbard: Advanced English Vocabulary Workbooks 1, 2a, 2b, 3a, and 3b. (Includes many scientific-technical terms used in levels 1 and 2 Reading).

Craft and Brown: Science Readings. Used in level 1.

The writing course at level 2 is structured in such a way that both science and non-science students benefit. Writing directions, classifications, definitions, causal-operational anaylses, objective reports is a skill all students need. In that same course basic tools of research are explored and a student of science technology will be expected to do reading and research in his major area of interest.

In the advanced pronunciation conversation class, the students are expected to give a minimum of three speeches on topics in their field. Also, during the advanced term (level 2), we try to get the student to audit a university course in their field.

In the past we have used special materials when we have had a contract group all members of which were majoring in a specific field. For example, our past Algerian students used a special new book entitled, The Language of Petroleum Engineering during their advanced term. Such materials cannot be used when students' needs and future goals are heterogenous.

One other feature of our program is pertinent here; during the level 2 Reading course, each student must read 50 pages weekly from a book in the student's field. As soon as one book is finished, the student must begin another - again in the student's field. Every week, a report is handed in on the 50 page reading assignment. Books that the students choose are subject to teacher approval.

* * *

EDITOR'S NOTE:

The following is the abstract of a presentation made by Bob Weissberg at the 1977 MEXTESOL Convention. The full text is scheduled to appear in an upcoming edition of TESL Reporter (BYU-Hawaii)

ABSTRACT

Progressive Decontrol through Deletion: A Guided Writing Technique for Advanced ESL Learners in Technical Fields

By Bob Weissberg, New Mexico State University

The techniques of guided writing have come into wide use as a practical means of helping second language learners achieve fluency in writing. These techniques have been found particularly useful with beginning students; however, advanced learners, especially university level students in technical fields, often find guided writing practice to be inappropriate to their needs. From the point of view of such learners, existing instructional materials in the area suffer from one of three basic failings: 1) manipulative practice with discrete language items may be stressed, but little or no formal provision is made to assist the student in using these items appropriately in the context of his freer writing; 2) situational contexts, often of little interest to the advanced technical student, are emphasized, while his problems with discrete language items are glossed over; 3) writing practice revolves around cognitive development exercises which the student may perceive as condescending, and thus, unmotivating.

Granting the basic validity of guided writing practice at the advanced level, the materials developer thus faces a dilemma. He must provide for intensive practice of discrete language items, but within a contextually based format relevant to the student. He must also provide the learner with freer writing activities, while holding the learner's attention to specific language items. A technique featuring progressive decontrol through deletion meets these objectives.

The technique proposed and illustrated here was developed at New Mexico State University for use with ESL students enrolled in graduate programs in various technical fields. It combines the advantages of intensive practice in the use of specific language features common to technical writing in English with the need for providing students the opportunity to employ the practiced items in self-generated contexts. Where controlled contexts are provided, they are in keeping with the sophistication and interest level of the learners.

The technique consists of a series of contextually based exercises featuring systematically expanded deletions. Each series deals with a specific language item (e.g., the passive voice, relatives, gerunds, etc.) As students work through the exercises they are allowed progressively wider opportunities for original writing, while maintaining focus on the particular item under study. Beginning with a controlled context, the students eventually control the context themselves, i.e., they are writing freely.

The sequencing of exercises is as follows: 1) identification of all instances of a particular language feature within a written model; 2) deletion and subsequent replacement (or restatement) of the feature at each occurrence within the model; 3) deletion and subsequent replacement (or restatement) within the model of whole clauses or phrases containing the feature; 4) paraphrasing the model; and 5) writing an original composition thematically related to the model, illustrating correct use of the target feature. Example excerpts from each exercise type are included, in this case focusing on the use of the passive voice as used in the writing of agricultural research reports.

A useful feature of progressive decontrol is its adaptability to a variety of teaching/learning objectives. Although the examples given deal with a sentence level grammar item, the focus of the exercises could just as well be on discourse level features or on the micro-vocabulary of a specific technical field. Whatever feature is chosen, progressive decontrol provides for its systematic integration into the advanced learner's active writing repertoire. Thus it proves to be a useful addition to existing guided writing techniques.

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ENGLISH FOR LAW, POLITICAL SCIENCE, BUSINESS ADMINISTRATION AND ECONOMICS, Progress Reports.

Editor's Note:

The Clearinghouse has received Progress Reports I and II on the above subjects from the Illinois-Tehran Research Unit in Iran. The reports are available through the Clearinghouse. Below are brief excerpts from each report, which were written by Dr. Lyle F. Bachman.

Progress Report I

The Tehran University Language Center Research Committee has been developing specialized English materials for use at Tehran University since 1971. The first set of materials, *English for Medical Students*, was completed and published in 1975. The second set of materials, for students of science and technology, has been written and field-tested, is now undergoing revision, and will be published this year. Work on a third set of materials, for students of law, political science, business administration and economics, was begun in September, 1976.

Progress Report II

Background and Rationale

As indicated in the previous Progress Report (January 1977), the materials currently under development by the Research Committee of the Tehran University Language Center are aimed primarily at developing reading skills in intermediate and advanced-level students whose main need for English is as a tool for reading professional materials in their own chosen discipline. The basic model used for determining and organizing the learning objectives is discourse/rhetorical rather than structural or lexical. That is, the core learning objectives are text-level (sentence group, paragraph, chapter, etc.) discourse or rhetorical techniques and functions, rather than sentence-level syntactic structures or lexicon. This is not to say, however, that structures and vocabulary are not included in the learning objectives. On the contrary, the structures and vocabulary typically associated with given discourse units form an intergral part of each learning objective.

* * *

BIBLIOGRAPHY

Copies of the Lombeida thesis, abstracted in an earlier edition of the Newsletter are now available.

The materials below are available from the Clearinghouse on an "at cost" basis, which covers the cost of reproduction and mailing. No profit accrues to the Clearinghouse. Please make checks payable to: Oregon State University.

Lombeida-Narranjo, Ernesto. THE TREATMENT OF TECHNICAL-SCIENTIFIC TERMONOLOGIES IN FOREIGN LANGUAGE EDUCATION. Master's Thesis, U. of Texas, Austin, May, 1971. $4.90

Nolasco, R. H. SCIENCE ACTIVITY AND THE LANGUAGE TEACHER. EST Newsletter, Corvallis, Jan. 78. 49¢

Selinker, Larry and Louis Trimble. REPORT ON H-SS 265, TECHNIQUES IN COMMUNICATION (special section, limited to foreign engineering students), Fall Quarter, 1967. U. of Washington, Seattle. 29¢

Selinker, Larry and Louis Trimble. REPORT ON CONTINUATION OF "SPECIAL SECTIONS OF TECHNICAL WRITING FOR FOREIGN ENGINEERING STUDENTS". H-SS 265 (Techniques in Communication) and H-SS 270 (Technical Report Writing), Autumn, 1968 and Winter, 1969. U. of Washington, Seattle. 24¢

Selinker, Larry and Louis Trimble. REPORT ON H-SS 270, ENGINEERING REPORT WRITING (special section, limited to foreign engineering students), Winter Quarter, 1968. 28¢

Selinker, Larry and Louis Trimble. TECHNICAL COMMUNICATION FOR FOREIGN ENGINEERING STUDENTS. University of Washington, Seattle. 78¢

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Issue #11
February, 1978

ENGLISH FOR SCIENCE AND TECHNOLOGY

A NEWSLETTER SPONSORED BY AID / NAFSA LIAISON COMMITTEE

Karl Drobnic, Editor
ELI AdS A100

Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

Longman House advises that the language lab tapes to accompany NUCLEUS GENERAL SCIENCE will be available in March through their New York office. A tapescript will be available. The tapes will not be available in American English, but about one-third of the material has been recorded using an American speaker.

Issue 9 of ESPMENA, Winter 1977-78, is now available through the Clearinghouse. Once more there is a wealth of practical information, including some good suggestions on the use of charts, graphs, and diagrams in language lessons. Complete sets of ESPMENA, Issues 1-9, are available through the Clearinghouse.

Issue 4 reviewed PROFESSIONAL ENGLISH PROGRAM 1, a work then in progress by Instituto de Idiomas Yazigi in Brazil. That work is now in print, subtitled "Biomedical Sciences". There is also a new Yazigi series in the Junior English Program for pre-adolescents that deals with ecology and follows Instituto Yazigi's unique format. Queries can be addressed to Instituto de Idiomas Yazigi, Av. 9 de julho, 3.166 - CEP 01406 - Sao Paulo, SP Brazil.

The English Language Institute at Oregon State now has a functioning English for Special Purposes Division. Programs currently underway or being prepared, include groups from Saudi Arabia, Japan, and Taiwan. Queries may be addressed to Erik Christy, Special Programs Coordinator, ELI, AdS A100, O.S.U., Corvallis, OR. 97331 USA.

The 1978 CATESOL Conference will be held March 3-5 at the Jack Tar Hotel in San Francisco. Among the workshops that may be of interest to Newsletter readers are the following: "Innovative Pre-Vocational ESL Materials", Hershorn and Porter; "Vocational ESL for Beginning Level Adults", Wang, Savage, How, and Yeung; "Language Through Science in a Bilingual Program, Korn. Further information may be obtained by writing Peggy Doherty/Myrtle Huges; Alemany Community College Center; 750 Eddy Street; San Francisco, California 94109.

Arrangements have been made to continue publication of the EST Newsletter for another year. We hope that all who have found this service useful during the past eleven months will renew their subscriptions. The price is the same and further notice may be found in the subscription notice on the back page. We continue to welcome comments and short articles from our readers. We also will continue our policy of placing longer contributions in the Clearinghouse and abstracting portions in the Newsletter.

D.P.L. Harper, Language Officer of the British Council in Mexico City advises us that "the British Council in Mexico has a small and specialized resource centre which has as its primary objective the distribution of materials primarily related to ESP to interested Mexican institutions."

John Dermody, the Southern California representative for Newbury House publishers sends a note of correction. In the Carnegie-Mellon description in the last Newsletter, we credited Advanced English Vocabulary to Barbard. The correct reference is: Helen Barnard, Advanced English Vocabulary 1, 2a, 2b, 3a and 3b, Rowley, MASS: Newbury House Publishers, 1971-76. Mr. Dermody would like to hear from anyone using the full series. He may be contacted through Newbury House, 54 Warehouse Lane, Rowley, Mass. 01969.

While making corrections, the bibliography listing in Issue 10 for "Report on Continuation of 'Special Sections of Technical Writing for Foreign Engineering Students'", Autumn '68 and Winter '69 is by John Lackstrom and Louis Trimble, not Selinker and Trimble as listed in that issue.

There will be an EST Materials Preparation Workshop at TESOL 78 presented by Ann Johns. Louis Trimble will be joint presenter. Plans call for a brief discussion of the major syntactic, semantic, and rhetorical elements of EST. The rest of the workshop will be devoted to the development of EST curricula.

American Language Programs at San Diego State now offers an intensive English for Business and Economics curriculum. There are plans for a program combining EBE and academic English (10 hrs. EBE, 15 academic English) for next fall. There will also be a 2 hour per week EST elective.

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TOWARDS AN ACCURATE ASSESSMENT OF THE SPEAKING ABILITY OF FOREIGN TECHNOLOGY STUDENTS AT UNIVERSITY LEVEL

By Maurice Ryan, University of Wales

Editor's Note: The following is a much-shortened version of a report on work towards assessing the oral ability of EST students at the University of Wales. Space limitations have required the editing out of many of the supporting arguments and details, and we urge readers to obtain the full text from the Clearinghouse. (See bibliography).

INTRODUCTION

Why has so little been written about the practicalities of accurately assessing short talks and oral technical reports given by trainee engineers and scientists from overseas? In university technology courses, and likewise in industry, the need to deliver industrial or scientific oral reports arises constantly. With English fast becoming the international language of technology and commerce, overseas students require the ability to communicate effectively by means of oral reports in English as much as their British counterparts.

Assessing the technical talks of overseas students

The increase in overseas students has made the assessment of oral technical talks at university level more complex. For example, should special allowances be made for the language difficulties of overseas students when assessing their oral competence, or is it necessary to rate them on a parity with native British students? The important factor here is the level of language involved. At university level, overseas undergraduates are expected to have reached a sufficient level of language to enable them to pursue their technical studies efficiently. A duality of standards would be unrealistic because not only examination requirements, but also professional scientific standards demand parity of assessment in written and oral work. Accordingly, the practice of the Communication Studies Unit at UWIST has been to train foreign speakers on a parity with native English speakers, even though a number of overseas students find the delivery of oral reports particularly difficult. Students are asked to give two talks on subjects of their own choice. The first talk, four minutes in length, can be on any topic, general or technical, and gives the student an opportunity to feel at ease in the speaking situation. About a month later, he is asked to give a second talk, eight minutes in duration, on a scientific or engineering topic. Both talks are videotaped and played back on the television screen for group evaluation.

The problem of reliable criteria of assessment

Given the necessity of applying the same criteria of assessment to the short technical talks of overseas and home students, what criteria should be applied? Is it sufficient to make an assessment which is based on mainly linguistic items such as intonation, morphology and sentence structure, or is a more comprehensive assessment needed in order to assess the total communicative act? It is significant that no standard rating system has yet been produced in TEFL work for assessing short technical talks of overseas students on a parity with native speakers. The criteria at present applied to the oral performance of overseas students by examining boards are largely preoccupied with discrete items such as pronunciation, grammar and structure, vocabulary and idiom, and fluency and speed. Also, most existing oral rating systems have been compiled for the assessment of interviews, not short talks.

The Inadequacy of existing E.F.L. criteria

The shortcomings of such criteria are apparent when applied to the assessment of the total communicative effectiveness of a four- or eight-minute technical talk, where non-linguistic factors such as arrangement of material, eye-contact with the audience, use of visual aids, physical stance, volume and certain other factors also need to be taken into account.

This year at UWIST, as part of a research project in methods of assessing overseas students' functional skills in using technical English, I experiemnted with methods of assessing short technical talks of four and eight minutes' duration.

First, I wished to see for myself whether traditional EFL criteria for rating oral production of overseas students were adequate for assessing short technical talks; accordingly, I began to experiment by devising a rating sheet. The rating sheet contained four traditional discrete items: 1) Pronunciation and Accent; 2) Grammar and Structure; 3) Vocabulary and Idiom; and 4) Fluency and Speed. A five-point scale was used.

Assessment was deliberately made during the 'live' delivery of the talk rather than when it was played back on videotape. If the speakers in question had been training to deliver scientific talks on Television, then it would have been appropriate to evaluate them from videotape. 'Live' evaluation was chosen instead as the authentic situation in which the speakers would find themselves later on, when they delivered 'live' technical reports in industry. The videotape play-back was used mainly for teaching purposes to help evaluate the weaknesses and strengths of the speaker's performance.

It soon became apparent that a rating sheet of the traditional type was unsuited for the assessment of short technical talks at university level, where circumstances demand parity of assessment between native and overseas speakers.

For instance, certain items were meaningless when applied to native speakers, for example, Scale 5 of Vocabulary—'Uses of vocabulary and idioms is virtually that of a native speaker' and Scale 5 of Fluency—'Speech as fluent and effortless as that of a native speaker'. Also, the item 'Fluency and Speed' was particularly unsatisfactory. Fluency and speed of delivery are often influenced by a number of factors which have nothing to do with a student's grasp of the language. For example, speed in a native speaker's delivery is often the result of nervousness, while with overseas speakers, speed is not always a guarantee of competence. It was decided therefore that Fluency and Speed could be included under other sections.

However, the biggest drawback of the initial rating sheet was the fact that it was not sufficiently comprehensive for this specialized type of oral task. It placed excessive weight on linguistic items, and ignored important communicative factors which are inevitably evaluated by the audience of a technical talk. For example, members of an audience will not rate a talk very highly if they cannot hear what the speakers is saying, or if he overloads the talk with irrelevant facts; in the same way, the overall effectiveness of a speaker's performance will be impaired if he merely reads from his notes and does not maintain eye contact with his audience. These are not linguistic items but they are part of the non-linguistic, communicative features which must be taken into consideration if one is to make a balanced and reliable assessment of a short talk in a 'live' setting.

Accordingly, after using this rating sheet for a number of weeks, it became obvious that the criteria which it contained were too weighted linguistically, and insufficiently representative of the communicative factors involved to give an accurate assessment. An overall assessment of the total communicative act was needed. But how was this to be done?

The very nature of a short talk requires either direct assessment or no assessment at all. At UWIST for instance, where technical talks are delivered in a teaching setting as part of the Communication Studies Unit's programmes in oral skills, it has always been the practice among tutors to look at the talk as a whole and then point out any deficiencies in communicative effectiveness. This inevitably requires consideration of communication factors as well as linguistic features. It is in fact possible to draw up a comprehensive checklist of the main elements, non-linguistic as well as linguistic, involved in the total communicative act, and then weight them in specific categories, so as to rate native English speakers and foreign speakers on a parity with each other.

Two requirements were clearly necessary in composing a new rating sheet for the particular situation of students giving short technical talks; first, since the previous rating criteria were invalidated because they were too narrow to measure what they were intended to measure, the new categories must be comprehensive; secondly, they must be weighted in such a way that they applied equally to overseas and native English speakers, and yet discriminated between speakers according to both linguistic and communicative criteria.

In conjunction with Rachel Hanks, who is researching at UWIST into methods of assessing the oral skills of adult native English speakers, a new comprehensive assessment scales was drawn up and pretested. After much analysis of the different factors involved, it was decided to make five main categories, each assessed on a ten-point scale. Although there is still much controversy regarding the ideal number of points to use in an assessment of this type, a ten-point scale was chosen because of its familiarity to both raters and students. A mark out of 100 for each student was obtained by multiplying the score out of 50 by 2.

The five categories were as follows:

1. GRAMMAR AND STRUCTURE
   (Control of morphology and syntax. Ability to use grammatical patterns and to produce coherent and connected speech).
2. CONTENT
   (Too many facts—too few. Arrangement and unloading of material. Register—the appropriate use of scientific terminology).
3. VOICE
   (Linguistic factors—Intonation, word and sentence stress, pronunciation.
   Communicative factors—Distinctness of words and articulation. Use of pauses. Volume; projection of voice to the audience. Too fast or too slow? Does the speaker's accent interfere with communication—for both foreign and native English speakers)?
4. PHYSICAL PRESENTATION
   (Posture and stance. Speaker's use of gestures. Mannerisms. Eye contact with audience. Use of visual aids).
5. INTEREST
   (Enthusiasm of speaker for his subject. Was the speech boring or interesting? General effectiveness of the talk).

During the pre-tests of the new rating sheet, several factors emerged. It took time and experience for the raters to apply the new criteria effectively and make the necessary discriminations. However, steady comparison of evaluations helped to establish consistency. In the light of recent research into the value of combining code marking with impression marking [9] raters were also asked to give an overall impression mark out of 100 at the end of the talk. This was made before the marks of the discrete items were added together.

After two raters had had sufficient time to feel at ease using the scale, a sample of students was rated jointly, and the marks given by the two assessors were correlated using the Pearson Product-Moment Correlation Co-efficient.[10] The rater's Impression Mark scores had a correlation coefficient of .578 while the scores from the Five-point Scale had a higher correlation coefficient of .758. A computerized factor analysis of the new rating system is in the process of being set up.

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TEXTBOOK REVIEWS

"Review and Analysis of Thirteen ESP Textbooks", compiled by Ron Mackay and available from the Clearinghouse, (See bibliography, Issue 9), contains reviews of the following texts:

1. Special English for Hotel Personnel
2. English in Workshop Practice
3. A Modern Course in Business English
4. Special English: International Trade
5. The Structure of Technical English
6. The English We Use for Science
7. Beginning Scientific English 1
8. Writing Scientific English
9. The Language of the Petroleum Industry in English
10. English as a Foreign Language for Science Students
11. Elementary Scientific English Practice
12. Beginning Scientific English 2
13. English Studies Series 7 - Chemistry

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RELC Journal EST Articles

Back issues of RELC Journal contain the EST-specific articles listed below. They are available in microform through University Microfilms, Ann Arbor, Michigan.

Volume V, Number 1, June 1974

H.G. Widdowson: "An Approach to the Teaching of Scientific English Discourse"
J.E. Ewer: "Note-Taking Training for Non-English Speaking Students of Science and Technology."

Volume 6, Number 2, December 1975

Christine Tan San Yee: "Sequence Signals in Technical English"

Volume 7, Number 1, June 1976

Suraprom Puangmali: "A Study of Engineering English Vocabulary"

Reviews:

Lee Kok Cheong: ENGLISH IN MECHANICAL ENGINEERING
Mary Tay: ENGLISH IN PHYSICAL SCIENCE
John Honeyfield: ENGLISH IN BASIC MEDICAL SCIENCE
R.A. Knight: ENGLISH IN WORKSHOP PRACTICE

Back issues may be obtained by writing SEAMO Regional Language Centre; RELC Bldg., 30 Orange Grove Road, Singapore 10, Republic of Singapore.

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BOOK REVIEW

Longman's has published a classroom text for the ESL teacher who does not feel confident enough of his scientific background to teach an Egnlish for Science course. The book is LEARN ENGLISH FOR SCIENCE 1, by A.R. Bolitho and P.L. Sandler. There is a student text and teacher's book, but no tapes. It is aimed at the pre-intermediate level student.

The text is intended to "form a bridge between the general English that students will have learned in the first stages of their language course and the scientific and technical language they will need later on." The authors "seek to provide the students with practice in reading and understanding, explaining and defining, verbalizing scientific symbols, interpreting tables and graphs, the beginnings of simple scientific report writing."

The book has twelve units and three review sections. Each unit has a distinctive scientific or technical theme (e.g. lenses, space, jet propulsion) built around readings, diagrams, and illustration. The exercises that follow the readings put the ESL teacher on familiar ground. The format of the texts and exercises are adaptable to many of the common ESL teaching techniques, yet lend themselves to group work and the discussion of "real" problems of science. If the students are knowledgeable in science in their native language, this book will encourage a flow of information from student to student and students to teacher.

The teacher's manual offers practical advice and provides an answer key. Simple activities for the introduction of each unit are suggested that deal with the theme of each unit. While there are few or no instances of grammar description in the student text, grammar guides are contained in the teacher's book. Finally, there are two pronunciation glossaries in the student's book, one for science related words and the other for proper names that occur in the various units.

This is a book addressed directly at one of the thorniest problems for materials developers; how to write materials that are not conceptually insulting to students who may know a great deal of science and at the same time not be impossible for the language teacher to take into the classroom with confidence. Interested parties in the United States should write to Longman, 19 West 44th Street, New York, New York 10036.

* * * * *

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Crofts, James, Phil Skeldon and John Swales, eds. ESPMENA Bulletin #9. English Language Servicing Unit, Faculty of Arts, University of Khartoum, Khartoum, The Sudan. Winter 1977-78. $1.00

Ryan, Maurice. "Towards and Accurate Assessment of the Speaking Ability of Foreign Technology Students at University Level." EST Newsletter, February 1978. Corvallis, Oregon. 68c

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EDITOR'S NOTE:

The following description of the ESP interests of the EFL Unit at the University of Essex was forwarded by Mrs. Jo McDonough.

ESP IN ESSEX

The Unit for English as a Foreign Language (EFL Unit) of the Department of Language and Linguistics, University of Essex, was officially established in October of 1976 (though EFL classes had been run before this date). The main functions of the Unit are: administering an English language test to all overseas students entering the University and subsequently organising term-time 'service courses' for students with language problems; organising short 'special' courses during vacations and term-time for closed groups from overseas.

The research interests of members of the Unit (currently 3 full-time members) fall largely within the field of ESP, and include work on planning programmes in English for Academic Purposes; research into and preparation of listening, note-taking and expository writing materials, as 'Study Skills'. In the same area, work is also being done in the Department on communicative testing.

* * * * * *

CONFERENCE IN POLAND

We have received word that a conference devoted to teaching EST was held in Warsaw 24-28 January. We have no further information, however, and would appreciate a brief report from anyone who participated in this conference. We would especially like to know if and how the proceedings can be obtained.

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SUBSCRIPTION RENEWAL INFORMATION

This is the eleventh issue of the EST Newsletter. There is one more issue to come in our current "subscription year", an issue that will already be on its way to the printing office by the time this reaches you. The Newsletter will continue with 12 more issues planned for the April 78-March 79 period. An early issue will survey the EST scene in Mexico, and more special issues of a similar nature are being negotiated. We hope that you will continue to subscribe. We've held the line at $U.S. 4.00 for Canada, Mexico, and the U.S.A. For subscribers with addresses outside these countries, there is an increase to $U.S. 5.00.

As producing the Newsletter is basically a one man and a typist operation, it would make the job much easier if those intending to renew would do so before their current subscriptions run out. Therefore, I hope to hear from you soon—The Editor.

SUBSCRIPTION FORM

PLEASE ENTER MY SUBSCRIPTION TO EST NEWSLETTER, YEAR 2, TO BE PUBLISHED MONTHLY.

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Issue 12
March, 1978

ENGLISH FOR SCIENCE AND TECHNOLOGY

A NEWSLETTER SPONSORED BY AID / NAFSA LIAISON COMMITTEE

Karl Drobnic, Editor
ELI AdS A100

Oregon State University
Corvallis, Oregon 97331

FROM THE EDITOR:

This issue marks the end of the first year of the EST Newsletter. Year 2 will begin with coverage of the TESOL Convention in Mexico City. To facilitate the gathering of information relevant to EST, and to provide you, the readership, with a chance to meet others with like interests, the Clearinghouse is arranging for a meeting room in the conference hotel. The meeting room will be open periodically throughout the convention, and I hope that all of you who will be in Mexico City will stop by to say hello. Look for further details in the daily bulletin at the convention and on the information board.

Coverage will also be provided for the AILA Congress in Montreal this August, where there will be a report on the results of a two-year, worldwide ESP survey conducted by the Commission on Language Teaching to Adults. (See Issue 10 for conference details.)

Stephen M. Silvers, an instructor at the University of Amazonas in Manaus, Brazil reports that they are developing a two-semester English course for Brazilian university students, technicians, and researchers in the biological sciences. The course will be used with graduate students at the National Institute for Amazonean Research and with undergraduate students at the University of Amazonas.

Abelle Mason, Massachusetts Institute of Technology, reports that she is involved in developing a writing test for foreign engineering students. She would appreciate hearing from anyone who can recommend evaluative instruments and methods that they have found useful. (The Clearinghouse would appreciate hearing also.) Contact Abelle Mason, Instructor in EFL, 14N - 221, MIT, Cambridge, Mass. 02139.

*****

Singapore University Press has announced publication of SYNTAX OF SCIENTIFIC ENGLISH by Lee Kok Cheong. The advance flyer gives the following information:

"This study was undertaken to investigate the relationship of thought and expression in four scientific disciplines -- Dynamics, Statics, Physics, and Chemistry -- through a detailed linguistic analysis and frequency-study of a corpus of continuous English texts used by science and engineering students. The linguistic approach adopted in this study was an eclectic one, incorporating some of the more recent findings of generative-transformational, systemic and structural-semantic grammars. Discourse analysis and its approach to the study of cohesion in English were also used to explain certain linguistic properties of scientific English."

"Significant correlation, established between the linguistic and rhetorical features and the content of the texts, would help to identify the reading skill required in the efficient comprehension of advanced scientific texts."

"With the knowledge of the characteristic linguistic and rhetorical complexities inherent in scientific English, the language teacher would be able to help students resolve structural and conceptual ambiguities, and thus improve their fluency in reading."

Copies of this book may be obtained from Singapore University Press (PTE) Ltd.: House No. 11; University of Singapore; Bukit Timah Rd.; Singapore 10. The price by surface mail is $U.S. 12.50.

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RELC is in the process of preparing EAP materials for trial in June and July of this year. They have identified EAP units at institutions in the Singapore area and have a program of visits to these institutions.

My final editorial note concerns subscription renewal. I hope that all who intend to renew will do so immediately. This will simplify my work immensely and will be greatly appreciated. (See subscription notice on back page.)

Editor's Note: Setting up the administration of an ESP program brings with it situations as unique and problematic as teaching ESP, yet there is little literature on the subject. Erik Christy, Special Programs Coordinator at Oregon State, here presents the first of a series of observations on administrative aspects of ESP encountered in the U.S. university setting. Readers are invited to direct administrative questions to Mr. Christy, and he will make them the basis of future articles.

GENERAL PROCEDURES OF ESP ADMINISTRATION

by Erik Christy, Oregon State University

In this article, a number of guidelines to the organization and administration of specialized English programs will be discussed together with an illustrative support background of the experience of English for Science and Technology programs administration at the ELI, Oregon State University. This information is meant to serve as a preliminary guide to institutions, schools, and international organizations contemplating entry into the planning and conduct of competency-based English language training.

Identification of Resources

Competency-based English language training is directed toward providing detailed language instruction in a specific curriculum having a unique set of student performance requirements as ultimate instructional goals. When contemplating the administrative organization to support this type of program, two of the primary considerations should be to determine whether (1) staff is available having the expertise to condense a broad technical subject matter curricula into linguistic and notational concepts and (2) an adequate academic support base exists in the broad curricula to serve as subject matter consultants to the language training staff. The English Language Institute at Oregon State, in conjunction with the related academic departments of the university, has planned and conducted programs in the English of Nuclear engineering and science education. The ultimate goals of both programs have been directed towards providing the language skills required to successfully pursue advanced degrees. Thus, the ELI operates its programs mainly in conjunction with and along the academic organization of regular university Master's Degree curricula. It is very important that both language-training and departmental faculties be able to jointly consider goals and objectives of any proposed specialized English program directed toward a specific subject matter. The language training faculty must be thoroughly appraised not only of the degree requirements of the graduate department involved, but also of the teaching methodologies employed in the delivery of the subject matter. Conversely, the departmental faculty must have an understanding of the language faculty's needs to break-down subject matter into linguistic language performance terms that can be taught upon a broad notational basis. The English Language Institute at Oregon State, having observed ongoing classes in the subject matter, subsequently identifies both the conceptual knowledge as well as practical skills necessary to an understanding of the subject matter and organizes this information into language-teaching units. It is important to note that this identification of resources involves not only an analysis of the availability of qualified personnel but also a determination of the degree of academic support available and the opportunity for a very close cooperative relationship between the two faculties involved.

The Organization of Student Recruitment

The adminstration of English for Special Purposes program-recruitment requires at least three organizational factors. First, a publicized curriculum offering is a necessary tool and should take the form of a catalog of classes. As an integral administation unit of Oregon State University, the ELI publishes a Program Prospectus which conforms to all publication standards and student recruitment policies of the OSSHE. It is extremely important that the catalog be topically oriented and that it contains an adequate description of each course offered. It is advisable that the catalog be directed toward a specific clientele which the receiving institution feels would most likely benefit from ESP instruction. The program at Oregon State is designed on a proposal basis which is directed toward the language needs of developing nations. Recipients of the ELI catalog may include counsellors of U.S. educational missions abroad, educational attaches of foreign embassies in the U.S. and the appropriate liaison staff of international organizations based in the U.S. as well as abroad.

The second administrative requirement for successful student recruitment in specialized language programs is the need for sound internal organizations within the recruiting institution. The influx of international student groups onto a university campus requires a highly developed administrative intake procedure. The administrative offices of the ELI work in close conjunction with the Offices of the Foreign Student Advisor, Student Housing, Business Services, Library, Bookstore, and other administrative units of the university. It should be noted that a number of specialized language programs could be simultaneously administered, and were this to be the case, a clear understanding of the needs of participating students should be clearly communicated to each university administrative unit potentially involved. Since the duration of programs may vary according to the particular goals of any one program, there needs to be adminsitrative flexibility in the scheduling of classes, testing procedures, and space facilities. Suffice to say that essential to a recruitment procedure is a determination as to which administrative units of the university or school will be involved and in what capacity.

* * * * *

THIS DISCUSSION OF RECRUITMENT WILL BE CONTINUED ALONG WITH THE REST OF ERIK CHRISTY'S ARTICLE IN THE NEXT ISSUE OF THE NEWSLETTER.

* * * * *

WHERE THE GRANTS ARE

A LIRS search of federally funded programs involving an EST component turned up 14 titles. The search was conducted for both international and domestic grants from the U.S. government; the Smithsonian Science Information Exchange data base was used. The titles indicate that the overwhelming bulk of government money going into ESP/EST is in the bilingual field, with an emphasis on vocational skills.

The titles listed below may reflect a bias in the data gathering processes of SSIE, as the titles seem to indicate sponsorship by HEW, Office of Education. The grant establishing the Clearinghouse project was not in the data base, and there may be other relevant grants also outside the SSIE data base. The titles we obtained are:

1. BILINGUAL SECRETARIAL TRAINING PROGRAM.
2. BILINGUAL AGRICULTURAL EQUIPMENT OPERATION AND MAINTENANCE.
3. STUDENT PLANS AND CAREER CLUSTERS.
4. BILINGUAL VOCATIONAL TRAINING.
5. BILINGUAL VOCATIONAL TRAINING PROGRAM FOR EMERGENCY MEDICAL TECHNICIANS.
6. VOCATIONAL EDUCATION -- BILINGUAL TRAINING.
7. BILINGUAL TRAINING FOR INDOCHINESE REFUGEES.
8. CHINESE ESL/MACHINIST VOCATIONAL TRAINING PROJECT.
9. STUDENT PLANS AND CAREER CLUSTERS.
10. PRE-VOCATIONAL AND CAREER INFORMATION FOR ESL.
11. CAREER EDUCATION AND GUIDANCE WORKSHOP.
12. THE DEVELOPMENT OF CZECH READER IN THE SOCIAL SCIENCES AND HUMANITIES.
13. MIGRANT HEAD START -- DAY CARE PROJECT.
14. COMMUNICATION AND INFORMATION SEEKING SKILLS OF HOPI CHILDREN.

We are reprinting below excerpts from the printout on #5 above to give those interested an indication of the type of information available about these grants through the LIRS system, a service that is available through many university libraries.

Printout of #5

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AN  - GV   9153
TI  - BILINGUAL VOCATIONAL TRAINING PROGRAM FOR
      EMERGENCY MEDICAL TECHNICIANS
DI  - CRAMER PJ
OS  - TEXAS WOMANS UNIVERSITY, SCHOOL OF HEALTH
      CARE SERVICES, TEXAS WOMANS UNIV. STATION,
      DRAWER A, DENTON, TEXAS, 76024
PP  - 7/76 TO 6/77
FY  - 76
SPO - U.S. Dept. of Health Education & Welfare,
      Office of Education, Bureau of Occupational
      & Adult Education, 400 Maryland Ave. S.W.,
      Washington, District of Columbia, 20202
CI  - G007603976
AB  -
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OBJECTIVES: The purpose of this program is to train 20 bilingual emergency medical technicians (EMTs) who will be qualified to take the State of Texas EMT examination. The program will emphasize bilingual medical terminology, English as a second language, and knowledge and skills in basic emergency medical technology.

EXPECTED CONTRIBUTION TO EDUCATION: The program will facilitate the adjustment of Mexican Americans to the urban setting and will help them become functional members of society. It will also serve as a model for bilingual EMT training programs that can be used in other institutions.

* * * * *

COMPOSITION FOR FOREIGN ENGINEERING STUDENTS

Editor's Note: Thomas Huckin at the University of Michigan reports that he has been teaching a freshman/sophomore level course for foreign engineering students and is now preparing a senior level course. The lower level course, the objective of which is reprinted below, is restricted to 20 students per term and has required extensive local development of materials. The upper level course is a special section of Humanities 498 exclusively for foreign students, titled "Technical and Professional Writing for Industry, Government and Business."

The course objective for Humanities 498 reads:

> "The purpose of this course is to train you in communication of the sort required of practicing engineers and managers on-the-job. Specifically, you will be taught to design technical reports by following a systematic procedure. This procedure will enable you to analyze the audiences for reports, to state the purposes for reports, to select and arrange report materials, and to prepare and edit a report text. In short, the purpose of this course is to improve your mastery of the whole process of report writing from the pre-writing stages through the final editing stages."

The complete syllabus is available through the Clearinghouse. (See Bibliography.)

The course objective below is for Professor Huckin's freshman/sophomore level course.

COURSE OUTLINE

HUM 103, "Composition for Foreign Students"

Objectives

The objective of this course is to significantly improve the foreign engineering student's competence in English expository writing. Topics ranging from punctuation to paragraph organization will be covered, with special emphasis given to those aspects of English which have particular importance for engineering students.

* * * * *

ESP CURRICULUM DEVELOPMENT PLAN

Editor's Note: Charles Frederickson has forwarded a ten page paper on ESP curriculum development. The paper represents Telemedia's "program planning focus in developing an ESP Curriculum relevant to the specific job-orientation and cultural and linguistic needs" of Telemedia's students in Iran. These are programs involving Imperial Iranian Army Aviation students. We are excerpting portions of the paper below. The complete text of this excellent guide is available from the Clearinghouse. (See bibliography.)

Excerpts from

HOW TO DEVELOP AN ENGLISH FOR SPECIAL PURPOSES (ESP) CURRICULUM

By Charles Frederickson, Telemedia, Inc.

* * *

A coding scheme should isolate instructional strategies and clarify learning points. Weekly quizzes, phase exams, and mastery learning cards are effective tools for prescriptive teaching based on careful diagnosis of individual student's needs. The ESP Curriculum Development process aims to enable each student to achieve this maximum potential by incorporating the following features:

1. Structural integration among components
2. Consistent flow of active vocabulary
3. Documented continuity and systematic reinforcement
4. Controlled initial review in an Entry Phase
5. Sub-technical-oriented and job-related materials
6. Coordination of cognitive, affective, and behavioral factors with a student-center focus
7. Highly motivating, interesting approaches, format and presentation
8. Audio-visuals and supplementary training aids to reinforce the basic materials
9. Field testing, feedback, and subsequent revision of the entire package
10. A coding scheme to clarify which learning approach is emphasized in a given segment of a lesson
11. Weekly quizzes and phase exams to assess student progress on an on-going basis
12. Continuous progress achievement cards to indicate individual mastery learning.

* * *

SUB-TECHNICAL VS. GENERAL ENGLISH CONTENT

In tailor-making an ESP Curriculum to fit students' unique needs, the materials should focus only on those elements of language acquisition which are essential to success. Three factors would go into deciding the content of the course. The first is that it be sub-technical in nature and relevant to student's needs. The second is the desire to include a certain amount of job-specific information, that is, purely technical information. Thirdly, a limited amount of affective and/or social language is included, such as greetings, expressions of mood, and identification of members of the family.

* * *

USE OF TRANSLATION

According to Stern, "You must not and cannot ignore the student's mother tongue. It constitutes his linguistic competence, or network, or frame of reference; it supplies him with a set of associations and a chaining of sounds and patterns that are different in many respects from English."

* * *

MEANINGFULNESS OF INSTRUCTIONAL AND PRACTICE MATERIALS

The ESP Curriculum should strive for a high degree of meaningfulness in instructional and practice materials. This is out of a belief that meaningfulness promotes learning, that it is essential that the student understand what he is practicing. To this end, it should make no difference whether meaningfulness is achieved through translation, creation of situation, or the use of realia and pictures. Indeed, the ESP Curriculum should avail itself of all of these.

While some educators assert that the student must progress from manipulation to meaning, the ESP Curriculum assumes that the student can start right off learning the language in meaningful contexts, in fact, "associating utterances with their proper social (and/or work-related) contexts" is the *sine qua non* of learning. While there may be a *minimum* of purely "social" contexts in the ESP Curriculum due to the nature of the goals, sub-technical concepts and work-related situations should be drawn upon heavily to provide the meaningful contexts desired.

A maximum proportion of the material should be meaningful in the belief that meaningfulness is most conducive to learning and retention. Indeed, manipulative drilling will be included in the ESP Curriculum when -- and only when -- a specific reason to do so exists. Such reasons might include "heaviness" (Stevick's definition), a specific phonological problem area (assignment of stress of intonational contours), or other low-level (Rivers' definition) objectives prior to more meaningful and/or communicative drilling. The intention is not to eliminate manipulative drilling entirely, but to strive to make it meaningful.

* * *

REPETITION vs. REINFORCEMENT

It is assumed that frequency of utterance is not as crucial to learning as frequency of successful communication. Practice should have its place in the ESP Curriculum. However, mere quantity of repetitions should not be considered as important as the number of times meanings are associated with their linguistic manifestations. In addition, the number of different associations should be considered more important than the simple sum of exposure of a given association. While mere automaticity of response may play some role in learning, it is felt that the role of thinking about the language is more crucial. Therefore, repeated exposure to items in a way which requires not automatic response but concerted effort to understand the language and the meaning should play an important role. The ESP Curriculum should contain significant amounts of material for exercising this repetition of effort. This will be effected by daily "review" and "reinforcement" of previously learned structures, although the review of any given structure will not necessarily take place daily. Because of the time lapse from one exposure to another, recall for the purposes of reconstruction will require some degree of effort. When this recall produces utterances falling below what the teacher considers to be the acceptable standard, review in the classic sense (re-instruction) can be effected.

* * *

COMMUNICATION vs. CORRECTNESS

In designing the material and in considering possible methodologies, it is important to distinguish between correctness and communication correctness, since this will often be a factor in determining the focus and intensity of instruction in a given area. Areas in which students can be expected to make frequent mistakes which nevertheless do not interfere with communication should not receive an intensive degree of practice. However, areas which result in mistakes which materially interfere with communication should receive intensive attention.

* * *

ORDERING OF INSTRUCTIONAL ITEMS

Language items in the various components of the ESP Curriculum should follow some sort of ordering scheme (in terms of difficulty and/or frequency), but not in the strictest definition of ordering in the classic audio-lingual approach. Thus, it is seldom assumed that (1) a given item cannot be taught before another; nor that (2) a given item must be fully mastered before moving on to the next.

Rather than confining efforts to strict ordering of the introduction of new material, whenever possible, stress should be on semantic (over structural) clarity, "Communicative" usefulness (how many things can we talk about with this language item?), and obviousness of the material's relevancy to the student's projected use of the language.

This is not to deny the importance of (1) keeping the number of learning tasks presented together to a minimum and (2) ordering learning tasks in a manner which facilitates their acquisition and retention. Rather, affective factors should enjoy equal or greater emphasis than the purely linguistic in those places where both constraints cannot be met.

* * *

The following considerations should be incorporated into the development of the Vocabulary Corpus:

1. Define the appropriate size of the corpus, multiplying the number of items a student can be expected to master within a given period of instruction (delineating passive or active acquisition) by the total numbers of hours of instruction in the program.

2. Determine the categories and grouping parameters, separated according to content and function, excluding such data as articles, numbers, and basic prepositions.

3. Develop a coding scheme to indicate the part of speech noting if the word occurs in isolation or as part of a compound or phrase.

4. Based upon available follow-on training and job-related printed documents, perform a frequency usage word count.

5. Analyzing discourse within structured Follow-On-Training learning situations and evaluating on-the-job language requirements, record observations on a checklist designed to isolate the linguistic needs within the contextual setting.

6. Specify whether reception or production is the desired outcome, log the model/skill being emphasized and the degree of participation required, and list factors influencing interaction, describing which affective or kinesic variables enhance or inhibit the communicative process and indicating the main focus or learning point introduced.

7. Compare general vocabulary lists such as Thorndike and West with the cumulative ESP corpus to discover similarities and differences and, after group discussion, modify, if deemed appropriate, according to cultural and job-specific priorities.

8. Combine the tentative ESP priority vocabulary listing with the grid of structures, balancing the anticipated level of difficulty by lesson and grouping the items according to logical categories.

9. Incorporate the input of writers of the various segments as to requirements for the various hours and, as the course development proceeds, modify the ordering according to specified priorities.

10. At least five types of working vocabulary lists will be helpful in the curriculum development process:

a. General usage vocabulary
b. Sub-technical (and limited technical) vocabulary
c. A parts of speech listing
d. An alphabetical listing
e. A tentative frequency listing of the 500, 1000, 1500, and 2000 priority words.

* * * * *

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SUBSCRIPTION RENEWAL

This is to remind you that subscriptions to the EST Newsletter are on an April to March basis. If you subscribed somewhere in between, your subscription was back-filled to Issue 1 and picked up with whatever issue was current. Therefore, all subscriptions are now up for renewal, per the form below. If your address will remain the same, please leave the address section blank.

Subscription Form

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ENGLISH FOR SCIENCE AND TECHNOLOGY

KARL DROBNIC, EDITOR
ELI ADS A100

(503) 754-3006

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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FROM THE EDITOR:

ESP/EST was a constant theme of the 1978 TESOL Convention in Mexico. Workshops, colloquia, papers and plenary sessions all devoted attention to various aspects of the movement and served to establish ESP as a dominating force on the North American ESL scene. Though there were far more ESP presentations than one person could cover, a note that recurred throughout was that ESP is a response to a need. Various sponsoring agencies, from the U.S. government to private corporations to foreign missions are asking for language programs that deal with the particular problems of the group they are funding. There has thus been a considerable amount of grass roots activity in ESP; teachers (and teacher/linguists) have been intimately involved in its development.

The outgrowth of this has been a considerable degree of isolation and lack of communication between various sectors of the ESP movement. The prime example of this seems to be the schism that exists between those involved in English for Academic Purposes (mostly those involved in university ESL programs) and English for Vocational Purposes (mostly those involved in community college and CETA ESL). The lack of interaction between the various ESP programs has resulted in a great deal of duplication of effort.

Few presentations made any claims for ESP teaching the language faster, better, or less effortlessly. Rather, presenters spoke of language programs that were more relevant, meaningful, and adult in nature.

The interest in ESP did not escape the publishers. A few already have well established lines in the area; others were actively seeking manuscripts and unveiling plans to add ESP titles to their lists. Most of the major ESL publishers expressed themselves as being receptive to reading ESP manuscripts and anyone with well-thought-out material who cares to publish should not hesitate to contact one of the publishing houses.

About forty people attended the Clearinghouse report on Wednesday night, and it was only the next day that we learned that half again as many people were left standing in the hall due to a malfunctioning entrance door. In keeping with its policy of communication, the Clearinghouse kept its report short and devoted most of the time to getting those in attendance talking to each other.

Of the many ESP presentations, special mention should be made of the blue ribbon colloquium chaired by Ron Cowan. The six hour session spanning two mornings drew together research from around the world. Of particular note were the presentations by Henry Widdowson and Louis Trimble. Widdowson's exploration of converging/diverging learning modes indicated where ESP may well be five years hence; Trimble continued to advance his recent investigations into EOP, which are indicating that the language used in technical manuals has a number of definable characteristics.

Reports of particular presentations will be found in this and later Newsletters, as will announcements of interest that resulted from the conference. However, there was so much that justice cannot be done to all the fine presentations.

* * * * * * *

EST TEACHER TRAINING INSTITUTE ANNOUNCED

Oregon State University and the Experiment in International Living have tentatively agreed to co-sponsor an EST Teacher Training Institute in August, 1978. Final plans will be made about the time you receive this Newsletter. As of now, the following items appear definite. The Institute will be held in Corvallis and last four weeks. Enrollment will be limited to about 10-12 participants. Preference will be given to those who can secure an institutional commitment to allow participants to pursue further development in ESP/EST upon return to their home programs.

John Lackstrom, who pioneered the University of Washington research in the field with Louis Trimble and Larry Selinker, and who taught in the EST Institute at the University of Washington two years ago, has agreed to develop the curriculum for this summer and to deliver a number of lectures. He will also oversee the various learning activities being planned. The curriculum will emphasize providing participants with those skills needed to implement an ESP/EST program upon return to their home institutions. This will include providing participants with one copy each of all titles in the EST Clearinghouse; they will use these titles in their Institute training and then return with them to their institutions to establish EST libraries for their home programs.

At this time, syllabus planning is proceeding on the basis of providing two weeks of theoretical/methodological orientation followed by two weeks of practicum in the classroom that will allow participants to try out various ideas. Interwoven in this will be a text book evaluation project that will survey all the current ESP/EST publications that we can obtain; to this end, several publishers have already informed us that they will make their titles available. Publishers providing titles will receive the final report of the evaluation project.

Further announcements about the Institute will be forthcoming in the Newsletter; those interested in attending should inform me c/o the Newsletter. Please include a telephone number where you can be reached during the day.

ESP BOOKS

Ron Mackay and Alan Mountford's English for Specific Purposes is now available from Longman's. It was just out at the time of the TESOL Convention; the copy on display there revealed articles that makes this a book we definitely plan to review in a forthcoming issue of the Newsletter.

The "Studies in Language Learning" series from the University of Illinois has as its Volume 2, #1 title Language for Special Purposes, edited by J. Ronayne Cowan. This book includes articles on teaching Russian, German and French for special purposes as well as English: the ESP portion of the book includes articles by John Lackstrom, "The Comprehension of EST Arguments and Definitions", and Peter Strevens, "ESP: An Analysis and Survey". Copies are $3.00 each. For information or to place orders, write: Studies in Language Learning, Language Learning Laboratory, G-70 Foreign Languages Building, University of Illinois, Urbana, Illinois 61801.

A third text in the same genre is English for Specific Purposes: Science and Technology, a forthcoming book edited by Mary Todd Trimble, Louis Trimble, and Karl Drobnic. Contributors will include Larry Selinker, the Trimbles, John Lackstrom, Ann Johns, and a number of others. Information may be obtained by writing the Newsletter.

Another forthcoming book is what has become known as the Trimble Feltschrift. Edited by Elaine Tarone, Larry Selinker, and Victor Hanzeli, this book is intended to honor Louis Trimble's contributions to the field of ESP. It is a book we will certainly keep the readership abreast of as publication details become available.

NEW PUBLICATION ANNOUNCED

The Clearinghouse has received a copy of Al-Manakh, the in-house journal of Kuwait University Language Centre. The March, 1978 issue contains a number of practical, "nuts and bolts" EST articles of the type always valued by teachers. Al-Manakh's first issue, edited by David Blackie, provides a showcase for the EST activity at Kuwait University, which for some time has been a fertile center of ideas and methods. The March issue shows that Kuwait has much of value to contribute, and we welcome the flow of information this publication will provide. We have queried the editor about plans for distribution of Al-Manakh and will let the readership know how to obtain Al-Manakh when an answer is received.

*****

BIBLIOGRAPHY

A bibliography of material added to the Clearinghouse files at the TESOL Convention will appear in the next issue of the Newsletter. The amount is considerable and there has not been time to process it prior to deadlines for this issue.

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ADMINISTRATION OF ESP PROGRAMS

EDITOR'S NOTE:

Issue 12 carried the first part of a two-part article on ESP program administration. Large homogeneous groups change the demography of established language programs, and the administrative impact of this has been an overlooked aspect of the ESP movement. On page 3 is Part II of Christy's article on the subject.

PART II, GENERAL PROCEDURES OF ESP ADMINISTRATION

by Erik Christy, Oregon State University

Important to the question of ESP program recruitment are the approaches used by the recruiting institution in its negotiations and communications with the sponsoring agency. Since OSU operates its specialized language programs on the basis of proposals submitted to it, it is extremely important that both the sponsoring and recruiting institutions maintain identical understandings of the administrative and academic components of the program. For these purposes, a standardized contract has been formulated which is sufficiently flexible to include varied stipulations responsive to both the particular needs of the sponsoring agency and the administrative demands and services required of OSU.

Administration at this stage should include the collecting of information concerning the language background of proposed participants. This is to provide the language faculty with advance time to prepare for instruction. Depending upon the nature of communications between sponsoring and receiving institutions, the language background information may or may not be accurate. Ideally, standardized English language placement tests should be administered and a thorough language background report compiled prior to the student group departing for the U.S. If possible, this should be done by a member of the receiving institution's staff so that the information collected will be accurate and relevant to that institution's methods and procedures.

OSU has experienced as long as a one-quarter delay in the beginning of specialized language instruction due to a lack of adequate background information on student groups. When language background information is inadequate, it is impossible to anticipate group needs until the students arrive, a serious flaw in any specialized language program that good initial administration can obviate.

If it is impossible to conduct a language survey and testing prior to the students' departure for the U.S., then it surely must be first priority upon arrival. The problem with this is that a specialized curriculum cannot always be adequately developed with such short preparation. It should be carefully noted that any recruitment effort for ESP programs requires a thorough information gathering component. This gives the language faculty the information necessary to establish initial goals and objectives, input which is crucial to effective budgeting and which allows the receiving institution to accurately judge what services will be required of both staff and institution.

Acculteration

Perhaps the most important aspect of the administrative structure of special language programs next to instructional organization is the methodology used for facilitating adjustment of the student to both the community and the academic schedule. Theories of cross-cultural communication, indeed the whole field of counselling dealing with the foreign student, can be more clearly applied if there is early emphasis placed upon the logistics of assimilation. Administratively, the Coordinator of Special Programs at OSU supervises a position entitled Community Orientation Coordinator which is a full-time effort to plan housing, transportation, and other necessities of becoming established in the community of which the incoming student has little knowledge. The Community Orientation Supervisor works closely with the language faculty in the early stages of instruction during which time at least a week is given over to acquainting the students with survival knowledge in such areas as driver training, contracts, medical emergencies, religion, and telephone procedures. The resources necessary to acquaint the student with his or her community are budgeted into the language program as a "special services" allocation. Out of these funds come the services of vans, field trips to points of either academic or recreational interest, lectures, and other activities planned to bring international and American students together. It is advisable that this position be budgeted at a full-time capacity for at least the first two terms of the program's existence in order to deal with the initial and subsequent follow up problems encountered by the students, and perhaps their wives, as the program progresses.

Summary

When considering the administrative aspects of specialized language programs, an analysis of available personnel must be made in conjunction with a very clear understanding of the structure and content of the academic field upon which the language program is to be drawn. There should be a close mutual relationship between both language and academic area faculties in order to determine a prioritized knowledge of skills progression in each of the clearly identified notational segments of the language programs. No language program will be successful if lines of communication between sponsoring and receiving institutions are not clearly defined as to the scope and content of the program, and no budget should ever be drawn up for consideration until thorough and accurate language background information on the participants has been received and discussed by the faculties involved.

****

Larry Selinker's article, "On the Use of Informants in Discourse Analysis and Language for Specialized Purposes", referred to as forthcoming in a previous edition of the Newsletter, will appear in an upcoming edition of IRAL Journal. Those who would like to stay current on this article, may have their names placed on a mailing list by writing:

Larry Seliner, Director
ELI
University of Michigan
Ann Arbor, MI. 48108

The article is an extensive treatment of research done by Selinker at the Hebrew University of Jerusalem in 1975-76.

THE TEACHING OF TECHNICAL AND SCIENTIFIC ENGLISH WITHIN AN INTENSIVE ENGLISH PROGRAM

Stephen C. Dunnett, Director
Intensive English Language Institute
State University of New York at Buffalo

While the furor over the teaching of EST continues many ESL teachers have come to recognize that they can no longer ignore the justifiable demands of their students for adequate preparation for college study. Foreign students who come to the U.S. for language training must, upon entering an academic degree program, compete with native speakers in the classroom. In our programs at SUNY/Buffalo we have noted that there has been a steady increase in the numbers of students intending to enter technical and scientific fields upon completion of language training. Currently nearly 70% of our students intend to study in scientific and technical fields.

In response to their demonstrated needs we added specialized courses in EST, Study Skills, Term Paper Writing and Academic Preparation in the summer of 1976. These courses are now an integral part of our intensive English curriculum and have won wide approval and acceptance from both our students and faculty.

The following is a very brief report of our successful EST course which is available, as an option, for all students in science and technology areas. This course has two main areas of concern, adaptation and specialized language.

The objective of the adaptation area is to introduce the foreign student to the problems and realities he will confront as a freshman or first year graduate student majoring in one of the theoretical or applied sciences in a technical program.

The adaptation area attempts to:

—teach the student to analyze and distinguish aspects of a learning area where understanding is limited.

—teach him to define a problem.

—develop the student's capacity to solve problems on his own.

—teach the student how to define a problem so that he can then ask for help.

—help him cope with competition by helping him to adapt to a competitive environment.

—help the student intergrate what he knows and apply it.

—help the student evaluate his priorities in time and effort.

—help the student utilize what he has already learned in the IELI and apply it to a technical curriculum.

—strengthen the student for such tasks as: a) long periods of studying alone; b) disfunctions between readings and class lectures; c) professors who will not slow down to accommodate foreign students; d) several examinations on one day; e) the dangers of cramming and cheating.

The objectives of the Specialized Language area are:

—to introduce materials from the theoretical or applied sciences curriculum.

—to improve reading focus through programmed materials.

—to help the student accelerate his comprehension of what needs to be done (the exigencies of any learning situation).

—to help the student cope with the anxiety of test taking.

—to introduce the language (vocabulary, idioms, specialized and common grammatical structures) of selected scientific topics (Chemistry, Physics, Engineering, Statistics and Computer Science.)

—to attempt to shift the student's focus from language learning to general study in English.

Space does not permit me to describe in detail the format of this EST course which meets three hours per week. Our approach to the teaching of EST is very similar to that described by others in this journal. The following textbooks and materials are used in our EST course:

1. Adamson, V. and Loew, M.J.B. General Engineering Texts (English Studies Series 9). London: Oxford University Press, 1971.

2. Allen, J.P.B. and Widdowson H.G. English in Physical Science (English in Focus). London: Oxford University Press, 1974.

3. Ewer, J.R. and Latorre, G.A. Course in Basic Scientific English. London: Longman, 1969.

4. Glendinning, E.H. English in Mechanical Engineering (English in Focus). London: Oxford University Press, 1974.

5. Hawkins, W.F. and Mackin, R. Physics, Mathematics, Biology, Applied Science (English Studies Series 3). London: Oxford University Press, 1966.

6. Hawkins, W.F., Mackin, R. and Taylor, G.V. Chemistry (English Studies Series 7). London: Oxford University Press, 1973.

7. Labowitz, L.C. Chemistry (Monarch College Outlines). New York: Simon and Schuster, Inc., 1973.

8. Salvatore, D. and Berliner, H. Statistics (Monarch College Outlines) New York: Simon and Schuster, 1973.

9. Smithies, M. Advanced English Comprehension Texts for Science Students. Collier-Macmillan Publishers, 1972.

10. Articles from Technical Journals, N.Y. Times, the Humanist, Scientific American, Popular Mechanics, etc.

The most interesting result of having added these specialized courses to our curriculum is increased student motivation and a much more positive approach to the total intensive English program. Furthermore a follow-up comparative study of foreign students who participated in an IELI summer program indicates that they experience less difficulty in their first academic semester, especially in the sciences.

As Inka Strukelj correctly pointed out in her thesis (see the EST Newsletter, No. 7, October, 1977) the teaching of technical communication and rhetoric is a particular problem within the realm of foreign language teaching. We have an obligation to our students to restructure ESL curricula to meet their changing needs. Not only must we revise curricula but there is also a great need for American texts and materials in scientific and technical English.

* * *

SPECIAL ESP ISSUE, MODERN ENGLISH PUBLICATIONS

Obtained at the TESOL Convention was a copy of a special ESP issue of Modern English Teacher magazine. The issue is "English for Specific Purposes", October, 1977, and is edited by Susan Holden. It contains over eighty pages of articles on the subject. The publication is true to its cover statement, which states that this is, "A collection of articles by a number of leading people working in this field. Various aspects of ESP are placed in the context of recent developments in EFL, and the material should stimulate and be of use to those working in all areas of EFL teaching."

Contributors to the magazine include John Swales, Tony Dudley-Evans, Alan Waters, and Donald Adamson. The price of the magazine is £2.20 (two pounds, twenty) plus postage. Postage and ordering information are per below:

POSTAGE*: Surface rate — anywhere in the world 25p
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To order copies contact the Subscriptions Department, MEP, 8 Hainton Avenue, Grimsby, South Humberside DN 32 9BB, England.

* * *

CHILE: SEMINAR ON ENGLISH FOR VOCATIONAL PURPOSES

By Odette Boys, University of Chile

In March an intensive week-long seminar on English for Vocational Purposes was held at the Santiago campus of the State Technical University. It was organized jointly by the Chile, Catholic and State Technical Universities, the In-Service Training Centre of the Ministry of Education and the British Council and was attended by more than 30 practicing teachers from commercial, industrial and technical schools, university service-English departments and binational cultural institutes from Santiago an other regions of the country. Acting as lecturer/tutors were practicing teachers from the sponsoring institutions and Miss Sally Stewart (Director, Holloway Industrial Language Training Unit, London) who had been invited by the British Council.

The talks given at the seminar dealt with the identification of the real needs within a given region for this type of English, the translation of such needs into the relevant language skills, and the matching of the language skills required to materials, textbook analysis and the use of AVA and other resources in the teaching of Vocational English. Their presentation led to the discussion of related themes such as modular programming, time allocations for Vocational English programmes, textbook resources and how to obtain them, teaching methods and evaluation.

The programme of activities consisted of lectures, informal discussions, group-work in the field and in class, presentations by participants and panel discussion; in view of the limited time available it concentrated on the identification of needs and the matching of language skills and materials for a sample range of very restricted and specific situations. An evaluation of the week's activities was held during the last session of the seminar, and the consensus among panel members and participants was that the practical nature of the experience gained would indeed be helpful not only in increasing the efficiency of the teaching of Vocational English in Chile but also in raising the status of the profession.

The summary proceedings of the seminar are available and can be obtained on request from:
Sra Eliana Urbina, Departamento de Idiomas, Facultad de Estudios Generales, Universidad Technica del Estado, Ecuador 3469, Santiago, Chile.

* * * *

EDITOR'S NOTE: The following report on the EST Conference in Poland is from Elzbieta Krawczyk.

POLAND

The conference was held in Warsaw from 24 January to 28 January 1978 and its subject was Foreign Languages in the Service of Science and Technology. The organizers of the conference were: Ministry of Higher Education and Technology, the Union of Polish Teachers, British Council, American Embassy and Warsaw University. Every day in the morning there were lectures given by prominent

POLAND CON'T.

Polish linguists: on 24 January by Prof. Alksander Szulc from the Jagellonian University of Cracow on Scientific Language and Glottodidactics, on 25 January by Prof. Jacek Fisiak from Poznań University on Teaching English and Its Historical Development, on 26 January by Doc. Dr hab. Tomasz P. Krzeszowski from Łódź University on Function of Native Language in Foreign Language Teaching and on 27 January by Doc. Dr hab. Waldemar Marton from Poznań University on Communicative Minimum and Linguistic Competence. In the afternoons each linguistic group /there were four of them: English, German, Russian and French /had its own workshops. As a teacher of English I took part in English workshops. We had them with Richard Wiest and Una McLean from Wrocław Poly, Philip Prowse, ELO from the British Council in Warsaw and one lecture given in the American Embassy by Mr. McClintock on Science and Technology in American Literature. Richard Wiest introduced to us a rhetorical approach to foreign language teaching and different games that could be used in teaching technical English. Una McLean spoke about Some Recent Developments in ELT and Philip Prowse about Foreign Language Learning Mistakes as Signs of Creativity. The conference ended with festivity on the occassion of 25th anniversary of foreign language teaching at Polish universities, technical colleges, etc.

* * *

VOLUME I OF EST NEWSLETTER AVAILABLE

The first twelve issues of the EST Newsletter are now available in reprint, handily stapled together (two on the left side) and ready to be a handy reference tool. Cost is $US 4.00 for North American addresses, $US 5.00 elsewhere. The overseas price includes airmail postage. Use the order blank below to obtain your copy.

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FROM THE EDITOR:

The 1978 Linguistic Institute, hosted by the University of Illinois, will include a topic-oriented session with special reference to English for special purposes in non-native contexts. Information may be obtained by writing Braj B. Kachru, Division of Applied Linguistics, University of Illinois, 4088 Foreign Languages Bldg. Urbana, IL. 61801.

* * *

The Translation Center at Carnegie-Mellon University is offering a graduate level Professional Intensive Training Program in Commercial and Industrial Translation in the 1978-79 academic year. The program objectives include attainment of professional skills in:

1) commercial and technical translation;
2) familiarity with subject matter; and,
3) technical writing.

Further information may be obtained by writing Dr. C.C. Greenfield; Translation Center Director; Carnegie-Mellon University; Pittsburgh, PA. 15213.

* * *

The Colorado School of Mines is offering "English for Foreign Engineering and Science Students" during the Summer, 1978. Two courses are offered. The "01" course meets 20 hours per week for 11 weeks; the "02" course meets 15 hours per week for 11 weeks. Dates are June 5 to August 18. Additional information may be obtained from: Director, Intensive Course in English, Colorado School of Mines, Golden, Colorado 80401.

* * *

According to the DIRECTORY OF SCIENCE COMMUNICATION COURSES AND PROGRAMS, there are 105 such courses and 34 programs in the United States. These are at 58 colleges and universities. The directory may be obtained by writing: Science Communication Directory, Department of Chemistry, State University of New York, Binghampton, NY. 13901. Include a check for $4.95 made out to "Science Communication Directory".

* * *

Information about the science writing program at Lehigh University can be obtained from: Sharon M. Friedman, Science Writing Coordinator, Division of Journalism, University Center #29, Lehigh University, Bethlehem, PA. 18015. (This is not an ESL science writing program.)

* * *

EFL teachers with a strong background in research methods and who are interested in working in programs where EST research can be undertaken should contact Lin Lougheed at Education Development Center, 55 Chapel St., Newton, MA. 02160. Lougheed is assembling a list of teacher researchers for anticipated future openings.

* * *

ESP activity at San Jose State includes an ESP course taught by Philip Cook in the TESOL MA program there. For ESL students, SJS will have an intensive EAP program beginning in the Fall of 1978. Interested parties should contact Philip Cook, Coordinator, Linguistics Program, San Jose State University, San Jose, CA. 95192.

* * *

COURSE DESCRIPTION FROM ANN ARBOR

Larry Selinker's Linguistics 565 course, "Discourse Structures", at the University of Michigan will focus on the following during the Fall 1978 term:

I. The content of Linguistics 565 for Fall, 1978 will be "The Language of Scientific Prose" (phrase borrowed from Robin Lakoff). The course will be divided into two parts:

A. Weeks 1-7: A look at what linguists have said about English for Science and Technology (EST) in the following areas:

1. The nature of scientific language
2. Science as a "secondary culture"
3. EST rhetorical structure
4. EST grammatical structure
5. Some relationships between (3) and (4)
6. "Lexical Semantics" as applied to EST
7. Some conflicting empirical claims.

We will attempt to carefully look at one or two influential papers on each topic.

B. Weeks 7-14: The attempted application of well established linguistic "field-method" informant techniques and procedures to EST texts. The goal will be to use two science or technology faculty participants in the course to serve as "specialist informants". We will attempt to work through two papers in each of two subject matter areas. For example, we will probably look at a "survey article" and a "research report" in one area of a particular discipline (say, some area of chemistry) and compare these with two "similar" papers in another discipline (say, electrical engineering). This will be done in terms of three CLASSES OF QUESTIONS:

1. What types of questions native speakers need to ask to understand any EST text.

2. What types of information experienced technical readers bring to EST texts.

3. What types of information are subject matter specific and which go across groups of academic disciplines.

*****

MASTER'S THESIS ABSTRACT

EDITOR'S NOTE:

George Hepworth has forwarded the following abstract of his recently completed 95 page Master's Thesis. The thesis, which has just arrived, is available through the Clearinghouse. (See Bibliography.)

A Functional Description of the Discourse For the English of Science and Technology

by George R. Hepworth, Utah State University

In the recent past, our understanding of language has increased tremendously, but, in Chapter One, I show that our methods of teaching are still deficient in one major way: although we organize writing classes around rhetorical devices such as "contrast and comparison", "causality", "chronological order", and so on, there is no effort that I am aware of to correlate these rhetorical devices with writing assignments students may be given outside of the ESL classroom. The question posed is whether it is possible to describe discourse, and in particular, discourse in English of Science and Technology (EST), in such a way that a consistent pattern of such rhetorical devices can be shown. In other words, does the discourse of EST require the writer to use these rhetorical devices in patterned, predictable ways?

In order to answer this question, the Discourse Bloc Model, a method of analyzing discourse into functional, rather than formal, units is employed. In the second chapter this model of discourse analysis is presented and explained.

The Basic Discourse Bloc Model is then used in Chapter Three to analyze the introductions to six experimental reports selected from a variety of scientific journals. The results are discussed in terms of the similarities which the six samples show.

In the fourth chapter, some deficiencies in the Basic Discourse Bloc Model are pointed out and overcome by modifying the Model according to insights drawn from traditional EST theory. An Idealized Introduction to an experimental report is then derived from an analysis of six more sample texts. This Idealized Introduction makes it possible to relate the rhetorical devices used (contrast/contrast, cause/effect) to the content of the introduction and show how a predictable pattern of usage can be used to prepare writing assignments for the ESL classroom.

In the final chapter, we discuss some further evidence that this Modified Discourse Bloc Model is capable of explaining a phenomenon in EST discourse that traditional EST discourse theory can not explain adequately. Tense choice is better explained under this mode. Suggestions are given for an approach to teaching this Idealized Introduction to the Experimental Report to an ESL class. Some discussion is devoted to the relationship of communicative competence and what is called here "rhetorical competence". Finally, some suggestions for further study are made.

*****

EDITOR'S NOTE:

The following article stresses that the materials described are available outside the United States only. U.S.-based readers are therefore left to their own resources.

INTERNATIONAL COMMUNICATION AGENCY ENGLISH FOR PROFESSIONALS PROGRAM

by Don Bouchard, English Teaching Staff

The International Communication Agency (a new U.S. government agency including elements formerly known as the United States Information Agency and the Bureau of Educational and Cultural Affairs of the Department of State) is in its third year of developing specially-designed English teaching materials that serve foreign audiences abroad. This materials development program, called English for Professionals (EFP), is designed to teach those persons interested in the field of management, economics, international relations, diplomacy, and marketing and who need further development of their ability to use English for professional purposes.

The Agency has produced and plans to produce an open-ended EFP series of lesson units. The Agency does not have any current plans to produce materials in the vocational, scientific, or technical fields, or for beginning or lower-intermediate-level learners of English in any EFP field.

Each EFP text is "open-ended" in that (1) it does not attempt to be an exhaustive treatment of any discipline or of the special English language requirements of the discipline; (2) additional units, produced at a later date, will be inserted into a given series; and (3) units from one series can be incorporated into another to meet special needs of a given group of learners (i.e., units from an economics series may be useful for an international relations course).

Two basic approaches are employed in the EFP series: (1) they may deal with current issues or events in a field; (2) they may cover the principal concepts of the discipline. All EFP texts provide material suitable for the development of listening, speaking, reading, and writing skills.

The following texts have been published in the English for Professionals series:

Business Management. Exercises prepared by Sandra Costinett. Advanced level. Readings, taken mainly from the Harvard Business Review, represent topics related to the field of business management. Exercises accompany each reading to facilitate the student's mastery and use of vocabulary and complex structures found in ungraded use of language.

Economic Growth and the Energy Question, prepared by David Wyatt, American Language Academy. Advanced level. Readings in economics followed by vocabulary development, grammar, dictation, and discussion exercises.

International Trade and Monetary Reform. Exercises prepared by Sandra Costinett. Advanced level. Readings taken from leading journals accompanied by exercises to improve vocabulary and syntax.

International Economics and Development, prepared by David Wyatt, American Language Academy. Intermediate level. Discourse analysis based on gradual approximation, i.e., simplifying original texts and rebuilding them through a series of gradating exercises.

A Teacher's Perspective, by Mary Jo Krowitz. Teacher resource book. This book presents the author's insights into teaching techniques in the field of English for Specific Purposes gained over a four-year period of teaching professionals at a large international banking institution.

The following texts are forthcoming:

Readings in Management, by Sandra Costinett. Intermediate level. This book contains ten units of readings and exercises on topics related to the functions of management. It is designed for use by non-native speakers of English with some formal training, experience, and/or special interest in management.

Multinational Business, by Louis and Mary Trimble. Intermediate level. This intensive specialized English text is designed to improve the student's ability to scan written material, read in depth, conduct an oral interview, and report findings.

Other EFP materials currently in progress include intermediate level texts in business, diplomacy, and marketing. They are expected to be available in 1979.

Because of current restrictions on domestic use of Agency materials, the EFP series is only available outside the United States. Those living outside the United States interested in the EFP material should contact the nearest International Communication Agency office at the American embassy or consulate.

* * *

ESPMENA 10 NOW AVAILABLE

Issue 10 of ESPMENA, Spring 1978, is now available through the Clearinghouse. Issue 10 is marked by a new format that results in clearer print and an easier-to-handle size. The usual high standard of practical content is maintained and we continue to endorse ESPMENA as the best source of ESP teaching ideas that is available.

For those unfamiliar with ESPMENA, all ten issues of this publication from the University of Khartoum are available from the Clearinghouse on our usual "at cost" basis.

1978 EST TEACHER TRAINING INSTITUTE

The EST Teacher Training Institute announced as "tentative" in the last issue of the Newsletter is now confirmed. Dates for the four-week workshop are 31 July - 25 August 1978. It is being co-sponsored by Oregon State and The Experiment in International Living. The program plan includes the following curriculum items:

1. Discourse and Sentence Analysis of EST
2. Materials Writing and Adaptation
3. Methodology, Curriculum and Course Design
4. Needs Assessment
5. ESP Textbook Evaluation
6. Teaching Practicum with International Engineering Students
7. EST Program Models

Coordinator for the Institute will be John Lackstrom, who has organized a participant-oriented curriculum that will emphasize providing participants with those skills needed to set up EST components at their respective institutions. A number of publishers have agreed to make examination copies of their ESP texts available to Institute participants.

The 1978 Institute will be limited to 12 participants. Preference will be given to those who can secure an institutional commitment to pursue further development in ESP/EST upon return to their respective programs. Tuition is $500 and will include a set of the complete holdings of the EST Clearinghouse.

Plans are already underway for a 1979 Summer EST Institute. Open enrollment is anticipated for 1979, and we encourage prospective participants to let us know what they would find most beneficial.

For those seeking institutional support to attend either the 1978 or 1979 Institute, Oregon State and The Experiment in International Living will provide documentary support (letters, etc.) upon request.

Interested persons should complete the application form below and return it to:

Karl Drobnic,
English Language Institute
AdS A100
Oregon State University
Corvallis, Oregon 97331 U.S.A.

OREGON STATE UNIVERSITY - EXPERIMENT IN INTERNATIONAL LIVING

1978 EST TEACHER TRAINING INSTITUTE

31 JULY - 25 AUGUST

CORVALLIS, OREGON

NAME ______________________________ TELEPHONE ______________

INSTITUTION ____

MAILING ADDRESS ____

____ ZIP ____________

APPLICATION DEADLINE IS 10 JUNE 1978. RETURN THIS APPLICATION TO:
Karl Drobnic; EST Teacher Training Institute; ELI AdS A100 OSU; Corvallis, Oregon 97331, U.S.A.

1978 INSTITUTE

______ I am interested in participating in the 1978 Institute.

______ I can secure an institution commitment to allow me to pursue further development in ESP/EST upon return to my home program.

______ I can obtain institutional support to cover program costs.

My primary EST interest is: ______________________________________.

______ PLEASE KEEP ME INFORMED OF PLANS FOR THE 1979 EST INSTITUTE.

THESIS ABSTRACT

EDITOR'S NOTE: Reprinted below is the abstract of a 205 page thesis recently completed at UCLA. The thesis is available through the Clearinghouse. (See Bibliography). This thesis challenges some of the common suppositions about the nature of a good "model ESL lecture comprehension lesson" and is well worth the time of anyone teaching science/engineering ESL students.

THE ENGLISH USED IN LECTURES TO STUDENTS OF ENGINEERING

by Charles Walter Lotte, UCLA

Engineering students comprise a large and probably growing proportion of ESL students, both in the United States and abroad. Yet there is not much information on what the special linguistic needs of these students are. Especially little knowledge exists concerning the linguistic patterns which occur in engineering lectures and how these patterns compare with those used in other fields of study.

In the present study 19 science/engineering lectures were recorded and the second 15 minutes of each were transcribed. The occurrence of verb phrases and clauses was analyzed and the results compared with a similar study by Muench (1973), who analyzed lectures not only from engineering but also from the social sciences and business. In addition, a questionnaire survey was conducted among engineering ESL students at UCLA to determine the degree to which theses students wanted their ESL courses aimed at engineering studies.

The results indicate that engineering lectures are probably easier to process linguistically than lectures from other fields. First, they are usually heavily supported by blackboard presentations. Second, the quantity of linguistic material tends to be less. Third, the variety of patterns is relatively restricted. Almost 75% of the verbs were in the simple present tense and of these about half consisted of the copula. The simple past occurred only 10 times per 15-minute science/engineering-lecture segment, compared to 39 times in social science lectures. Model auxiliary occurrences and non-finite verb forms in the science/engineering lectures exhibited the same relative restrictedness of variety.

BIBLIOGRAPHY

The materials below are newly available from the Clearinghouse at the prices listed. The price reflects printing and postage costs; no profit accrues from their dissemination.

Bex, Tony, James Crofts and Phil Skeldon, eds. ESPMENA 10, University of Khartoum, Sudan. $1.00

Friday, Carol and Bev McLeod. "A Model for ESP Curriculum Development". Presentation of Telemedia, Iran ESP materials at 1978 TESOL Convention, Mexico City. (6 parts below.)

______ 1.	"Outline, 1978 TESOL Presentation"	.40
______ 2.	"Grammar and Vocabulary"	$1.75
______ 3.	"Helicopter Parts, Student Copy"	.95
______ 4.	"Language Lab Component"	.36
______ 5.	"Reading Lessons"	.98
______ 6.	"Vocabulary and Structure Grids"	.61

Hepworth, George. "A Functional Description of the Discourse for the English of Science and Technology". Master's Thesis, Utah State University, 1978. $4.50 N. America, $6.00 Outside N. America.

Johns, Ann with Louise Trimble. "EST Features and Curriculum Development". 1978 TESOL Convention. Mexico City. April. 78¢

Lotte, Charles W. "The English Used in Lectures to Students of Engineering". Master's Thesis, UCLA, 1978. $8.38 N. America, $11.00 outside N. America.

Research Committee, Tehran University Language Center. READING ENGLISH DISCOURSE, Business Administration, Law and Political Science, Economics, and Social Sciences. Unit I, Lessons 1-8, Unit II, Lessons 1 and 2. Tehran University, Tehran, Iran. 1977.

__________ Unit I: Time Order

Lesson 1:	Power Politics in Ancient China.	$2.39
Lesson 2:	The Development of Prison Systems	$1.79
Lesson 3:	Selection and Training of Police Officers	$1.79
Lesson 4:	Preparing a Scatter Diagram	$1.69
Lesson 5:	Mr. Wilson's Bottling Business	$1.39
Lesson 6:	How Can Companies Increase Their Capital	$1.69
Lesson 7:	Recent Economic Growth	$1.95
Lesson 8:	Political Changes in France Since 1958	$1.69

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Research Committee, Tehran University Language Center Con't.

__________ Unit II: Exemplification

Lesson 1: The Quality of Labor	$1.79
Lesson 2: Exchanging Surpluses through the Money System	$1.89

GRANT ABSTRACTS

Information concerning 22 bilingual vocational training grants that have been funded by HEW may be obtained from the Bureau of Occupational and Adult Education. They have forwarded a 41 page set of abstracts (free) prepared by the project directors. ESL is a component of the projects with instruction being specific to the particular jobs for which project participants are being trained. The subjects are wide ranging, covering such areas as trapping, cooking, mechanics and para-professional skills.

Unfortunately, the abstracts often do not contain contact addresses of the project directors. Where addresses were available, however, the Clearinghouse has written for further information. The bilingual vocational training projects appear to a large reservoir of "Fugitive" ESP material which this project, at least, has had little contact with.

The abstracts may be obtained by writing Doris V. Gunderson, Program Officer; Demonstration Branch; Division of Research and Demonstration; Office of Education; HEW; Washington D.C. 20202. Request: "Abstracts - Bilingual Vocational Training Projects".

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We hope that all Year 1 subscribers who wish to renew have done so by now. Economics forces us to go through the computer and update our mailing list, so if you have not renewed, you will not receive future issues of the Newsletter. I will circulate an announcement to those from whom I have not received renewals later this month. In the meantime, subscription information is per below.

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ISSUE 15
JUNE, 1978

ENGLISH FOR SCIENCE AND TECHNOLOGY

KARL DROBNIC, EDITOR
ELI ADS AIOU

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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FROM THE EDITOR:

An earlier edition of the Newsletter announced an in-house journal from the University of Kuwait named "AL MANAKH". Issue 2, April-May '78 arrived this week, 31 pages in a handsome printed format. It includes articles on teaching English from the Faculties of Arts, Engineering, and Medicine. The editor, David Blackie, states in the editorial of this issue:

> "Al-Manakh is not, despite apparent evidence to the contrary, an ESP journal. Not surprisingly, its contents depend on its contributors, and it is to be hoped will normally produce a variety of articles and thus constitute a fair reflection of the many professional activities of the Centre. The last and present editions of the journal have included articles on ideas for the classroom, the use of hardware and films, materials writing, testing, study skills, teacher training, reports on visits to and from the Centre, and more. Al-Manakh is tapping a rich vein and, as may be judged from the last two pages of this edition, has a large potential readership."

The "evidence to the contrary" referred to by Blackie is the large amount of space devoted to ESP in the articles; Newsletter readers will definitely find this journal of interest. Copies are available free of charge by writing David Blackie, Editor; AL MANAKH, Journal of the Language Center; PO Box 5486; University of Kuwait; Kuwait.

* * * *

Philip King of the English Language Centre, King Abdul Aziz University, Jeddah, advises of "... the British Council Book which came out last month. It's entitled ENGLISH FOR SPECIFIC PURPOSES in the series ELT documents, published by E.T.I.C., British Council at a price of £2.00. Of the seven articles, three deal with the KAAU programme..."

Issue 24 of the ELI Monthly (UPM, Dhahran), May '78, contains an article reviewing the EST debate at the University of Petroleum and Minerals as it has appeared in the pages of ELI Monthly over the past two years. Copies should be requested by writing ELI MONTHLY; Dhahran Airport; PO Box 144; G.C.W. Donald; UPM #60; Dhahran, Saudi Arabia.

* * * *

AVAILABLE

Evans Brothers publishers has forwarded a catalogue listing the titles below in their "English for Academic, Occupational and Commercial Purposes". For further information, contact Evans Brothers Ltd., Montague House, Russell Square, London WC1B 5BX.

ENGLISH FOR SPECIAL PURPOSES SERIES

(Revised Editions)

Listening and Note-taking	£1.20
Listening and Note-taking: cassettes (2)	£7.00
English Telephone Conversations	£1.20
English Telephone Conversations: cassette	in prep.
English for Bank Cashiers	£1.20
English for Bank Cashiers: cassette	£3.50
English for Hotel Staff	in prep.
Reading Scientific Texts	in prep.
English for Doctors and Nurses	£1.95
International Business Topics	£2.95
The Business Letter	£1.00
Evans Dictionary of Commercial English	£1.50
Evans English Dictionary of Science and Technology	£1.50
English for the Commerce Student	£1.40
English for the Business Student	£1.70

*****

Editor's Note: The following article is a much reduced version of a 15 page description of GTE Iran's work in developing an ESP curriculum. The complete version of the article, plus a sample lesson is available through the Clearinghouse (See bibliography).

PROCEDURE: THE KEY TO DEVELOPING AN ESP CURRICULUM

By David Litwack and the language training staff, GTE Iran Inc.

The clients of English language training organizations devoted to supporting industrial training programs abroad have become preoccupied with obtaining ESP curricula. Industrial training managers who are sensitive to, but not well-informed about the peculiarities of EFL are certain that an ESP curriculum or a text exists to fit their needs. We have known them to express disbelief that an ESP curriculum in polymar chemistry, for example, and addressing the needs of either beginning, intermediate or advanced English trainees is not already "on the shelf."

At GTE (General Telephone and Electronics with electronic communication sales worldwide) we are fortunate in having convinced an open-minded management that such curricula, and even texts, most often do not exist, particularly at the lower English proficiency levels; but that such curricula and even texts can be developed--and developed professionally with careful consideration given to the linguistic peculiarities of the technological literature in question. Rather than futile searching for commercially available (read "cost effective") ESP material--material which never quite seems to meet the specific needs --GTE has evolved a cost-efficient procedure for developing EFL/ESP material and designing ESP curricula.

The GTE procedure occurs in six steps:

1. Analyze client needs.
2. Source classroom material.
3. Write/edit the material.
4. Exercise (exploit) the material.
5. Edit the product.
6. Pilot and revise the product.

While these steps may seem commonplace enough, the procedure can still prove cumbersome.

It is therefore important to establish a time-based set of goals (an "analysis bar chart," a kind of modified PERT, is useful in this procedure and meaningful as well as impressive to an industrial client) based on the six steps for the client must be convinced of the value of a specially designed program as well as of the validity of the six steps, their time requirements and the cost/time factors involved. Then he must be kept abreast of developments with reference to each step.

Using the GTE (Iran, Inc.) experience as a guideline, a more precise accounting of the steps can be given as follows:

1. Analyze Client Needs.

The design staff must determine what trainees' environmental, skill and knowledge requirements will be.

For knowledge requirements, a task analysis or itemized list of duties for each job category, usually performed by the industrial trainer, should provide the necessary information. For skill requirements, the task analyses should provide language training professionals with the essential information regarding the priorities of language skill needs, e.g. oral versus written skill needs, or receptive versus productive skill needs. Regarding environmental factors, the past learning situations of trainees should be analyzed with the intention of designing some material to fit trainee learning styles without compromising the cultural transition implicit in technology transfer.

The language training professionals must then write performance objectives. The GTE Language Training Program has approached this task by analyzing the actual English content to be used by employee-trainees, categorizing the linguistic elements by skill, listing them in acceptable order of difficulty and then combining them into terminal performance objectives. Thus the GTE LTP has established a set of objectives (in ten steps for ease of computation) for each of these skill areas:

- Reading Comprehension
- Listening Comprehension
- Oral Production
- Writing

In addition, each objective is backed by a set of discrete enablings to call the instructor's attention to those details of language not mentioned in the terminal objectives. Because language is cumulative and mastery of a language element not an either/or consequence, the enablings will often continue to back 3 or 4 terminal objectives. Thus an element of language introduced to support one objective might be exercised through a second objective and only mastered at the time of the third objective. Enabling objectives can be established by each of the skill areas.

By establishing a comprehensive set of terminal and enabling objectives the language training staff can meet the exigencies of varying trainee proficiencies (at entry into the program) and eventually have available a corpus of training objectives to support a wide variety of programs.

2. Source the Material.

Once the client agrees to the objectives, the design staff can source authentic material to provide lessons and evaluation instruments against which mastery of the objectives can be measured. In language training where the content is cumulative and interdependent, every piece of material is in essence an evaluation instrument. GTE's objectives are time-phased so that at given points along the stream of lessons, a given lesson measures a trainee's mastery/proficiency for a point on the scale in a given skill area. (The comprehensive or terminal objective is mirrored in the lesson passage; the enabling objectives are mirrored in the exercises accompanying the lesson passage.) The material to attack linguistic skills can best support the objectives by approximating authenticity and, since the client is English language based, his literature can often serve as a basis for that material.

3. Write/Edit the Material.

Writing/editing the material dovetails off the sourcing process. The two tasks are necessarily interrelated since sequencing of the material depends on a variety of factors:

A. Vocabulary. This factor requires attention to the number of unfamiliar items in a given lesson best controlled by keeping a running glossary to help maintain a smooth continuum of vocabulary acquisition.

B. Grammatical/Structures. At GTE we have employed a traditional approach and traditional texts for teaching grammatical structures in a stream concurrent with the skill area focus. Lessons for the skill area streams highlight those structures most pertinent to the lesson; the exercises dealing with those structures are intended for review and assume that the structures have been addressed in the more traditional grammar stream.

C. Rhetoric. This factor requires identifying rhetorical functions and techniques that support them within the passages of "authentic" material.[1] The GTE staff identified very short passages that employed one function and one technique for its earliest lessons. In addition, passages were sequenced with regard to the assumed difficulty of rhetorical functions as follows:

(1) Definition
(2) Physical Description
(3) Function Description
(4) Classification
(5) Process Description

Once a function had been introduced and exploited via a group of lessons, the function was allowed to appear at random in order to help reinforce trainee ability to employ rhetorical elements as an aid to deriving meaning from a text.

4. Exercise (Exploit) the Material.

The passages, once sequenced, are then exercised in terms of the above factors. In Reading and Listening Comprehension each passage consists of a pre-stage, a stage attacking the passage directly and a post (evaluative) stage.

In Reading Comprehension, for example, the pre and post stages mirror each other. The prereading stage teaches the vocabulary, pertinent grammar and rhetoric of the lesson; the post-reading stage evaluates student acquisition in those areas. The middle stage, itself in three stages, attacks the skill directly and consists of a scan question(s), a timed reading, and a brief follow-up evaluation of comprehension.

5. Edit the Product.

An efficient process for developing material is to identify sourcer/sequencers (probably including the task manager) who pass their product to the editor/formater, who passes the format to the lesson writer.

The draft product is then passed to two heavy editors (one editing horizontally, within the lesson for continuity, and one vertically, among lessons for consistency), a light or cosmetic editor and finally back to the sourcer/task manager who gives final approval.

By adopting this approach and interchanging tasks a tight staff of five (any larger yields diminishing returns) can be producing several modules or course streams at once.

6. Pilot and Revise the Product.

Pride of authorship is an important ingredient in curriculum implementation. A training staff consisting of a reasonable mix of designers and instructors brought in form outside the development effort will provide a catalyst in two mutually supporting directions:

1. Designers will assist in delivering the developed material by up-dating the Instructor Guide as unanticipated aspects of the material come to light in the classroom.
2. Instructors not bound to the material by virtue of authorship will bring an objectivity to that material; and, given an effective reporting procedure, they can contribute revisions that enhance the "teachability" of the curriculum.

The above-described procedure has most recently permitted the development of 220 lessons in three course streams supporting two skill areas with 20 man-months (4 designers for 5 months) of effort. Specifically, the procedure led to the development of the following:

- Subtechnical reading lessons: 32 complete, 40 reserve lessons, approximately one and one-half hours each.
- Subtechnical listening lessons: 32 complete lessons, approximately one-half hour each.
- Electricity reading lessons (Electron Flow, Ohm's Law, Magnetism, Power): 56 complete lessons, approximately two and one-half hours each.

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[1] John E. Lackstrom, Larry Selinker, Louis P. Trimble, Technical Rhetorical Principles and Grammatical Choice, English Teaching Forum, Vol. XI: No. 3, June-August, 1973.

- Telephony-specific listening lessons (The Telephone Set): 9 complete lessons, approximately one hour each.

- Telephony-specific reading lessons (The Telephone Network, Digital Computers): 21 lessons, approximately two and one half hours each.

- Instructor Guides for all the above.

These lessons interact with those taken from commercially available materials to form the corpus of our intensive language program.

While the GTE language training staff has confidence in the quality of its product, the staff would not be so immodest as to insist on that quality without offering samples to interested professionals. The GTE LTP therefore welcomes queries to:

Language Program
c/o GTE-Iran, Inc.
140 First Avenue
Waltham, Massachusetts 02154

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Editor's Note:

The following is reprinted from ALSED Newsletter, No. 10, March, 1978.

ENGLISH FOR SPECIAL PURPOSES (ESP)

A Report of the Southeast Asian Ministers of Education Organisation (SEAMEO) - submitted through RELC (Regional Language Centre)

The past five years have marked the emergence of 'ESP' as a major field of 'English language teaching' endeavour, in linguistics, course design and materials production. The basic objective is the same, whether the work is being carried out for a 'developed' or so-called 'developing' country - it concerns the needs of learners who need a special reinforcement of their English competence in order to fit them better for a course of study, usually in a scientific or technical discipline, or for an occupational purpose. The underlying assumption is that the school curriculum (English for General Purposes), for various reasons, does not serve these 'special purposes' adequately, and that some kind of reinforcement English course is necessary.

Already, definitions and subdefinitions, each with its labelling acronym, have multiplied. So far we have touched on 'ESP' and its antonym 'EGP' (general purposes), 'EAP' (academic purposes) and 'EOP' (occupational purposes). This list can be extended. It is possible that we have rather too many such definitions at the moment, with a danger of clouding the issue by imposing artificial demarcation zones on what is essentially a continuum.

The distinction between ESP and EGP has, however, one important justification with a practical application, which helps us to keep in mind what ESP really is. The difference is the criterion by which learning success is finally judged. In 'EGP' this is usually a public examination of some kind, and success does not necessarily indicate communicative competence in any particular field. To put it at its crudest, the termination of an EGP course of studies is marked by the issue of a piece of paper, which may or may not be a real qualification for the application of language in a vocational field. The criteria for judging ESP learning success can be quite grimly realistic. At the technician level, it may involve such considerations as these: was the machine correctly installed? Was it operated and maintained? Are records going to be kept accurately? Are junior personnel properly trained? - In so far, of course, as these are functions of language competence, and they very often are, to an important extent. In academic study, success is measured by the degree of ease with which students can comprehend lectures, take useful notes, write reports and assignments, and above all make use of the library material necessary to their course of study.

But it still probably makes better sense to regard the whole process of language learning involving ESP/AP as a continuous process, but divided into three successive stages where the kind of involvement in language learning differs significantly. Not all students will pass through all three stages, but for the moment let us posit, first of all, a period of school learning, then a period of academic study at tertiary level, then a final preparation for a specific vocation. ESP is concerned with all three - quite clearly, in the case of the tertiary and vocational stages, but also, to a degree that is being increasingly recognised with school learning as well. Traditionally, school teaching of language is biased in favour of the humanities, and this has left its mark - more heavily in some countries than others. School English courses probably serve the needs of those who are going on to academic studies in literature, history and similar disciplines than those who are going to be our future scientists, technicians and technologists. School courses need to be re-studied with this possible imbalance in mind. These have been very busy years in ESP experiment and innovation, and we have much information and experience which can be applied to the school English course to make it more suitable for learners with a scientific or technical inclination. This is true in the fields of syllabus design, selection and treatment of reading material, approach to lexis and approach to structure.

Let us now consider vocational preparation. Here the needs and the approach are very different. What is usually needed is a specific 'package' to meet very specific needs, and to a large extent each solution has to be carefully tailored to meet the particular objectives. ESP work at this stage usually starts with a specific request for assistance. One example could be a group of hotel managements anxious to improve the language competence of their staff in dealing with overseas visitors. Another could be the management of a large oil concern, whose need is to train executives who have to mediate, in a highly technical field, between overseas experts who have no knowledge of the local language and junior operatives who have little command of English. This type of ESP work, obviously of great importance to the economy, is essentially a consultancy service. It goes on to a case study of the objectives, and involves both language teaching expertise and an insight into the real needs of the client.

At the middle stage, we are concerned chiefly with the Service-English departments or cells of tertiary institutions and training departments, and it is probably true to say that more has been done in this field than the other two. Most universities in Southeast Asia have such a language unit, and part of the early scene-scanning for RELC's own ESP project has involved making contact with these EAP units, for the purpose of identifying needs and setting up a routine for exchange of information. There is a programme of visits to such institutions, already completed for Singapore, as the most accessible area, but which will extend as opportunity offers to as many centres in the other SEAMEO countries as possible. As the project is planned at the moment, RELC's first batch of materials - now in preparation, and intended for trial in June to July, 1978 - is intended for application in this middle stage, the 'EAP' field, but we plan to keep open the other two options as well - that is, the application [illegible] both to vocational needs and to the school syllabus.

For further information contact SEAMEO Regional Language Centre, 30 Orange Grove Road, Singapore 10, Republic of Singapore.

NEW EST READING TEXT

The latest Prentice-Hall catalogue lists a new reading book by Anne Eisenberg entitled READING TECHNICAL BOOKS. Their promo makes the following claims:

> Shows foreign students how to successfully "shake-out" and organize information from general science, automotive, construction, and other technical and vocational texts. Since new vocabularies and technical meanings for familiar words create problems for these students, the text begins with the most common ingredient of all technical books--definitions and terms. It examines individual technical reading skills in a chapter-by-chapter approach, building on the previous ones. The skill is practiced in sentences and paragraphs, and with excerpts from typical introductory technical texts. Chapter introductions outline objectives and synopize chapters; end-of-chapter exercises progress in difficulty.

Review copies may be obtained by writing Ben H. Colt, College Division, Prentice-Hall, Incorporated, Englewood Cliffs, New Jersey 07632, USA.

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VOLUME I OF EST NEWSLETTER AVAILABLE

The first twelve issues of EST Newsletter are now available in reprint, handily stapled together (two on the left side) and a ready reference tool. The cost is $4.00 for North American addresses, $U.S. 5.00 elsewhere. The overseas price includes airmail postage.

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The following articles are newly available from the EST Clearinghouse. The price covers the cost of copying and postage; no profit accrues to the Clearinghouse from their dissemination.

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Drobnic, Karl. "Teaching Conceptual Paragraphs in EST Courses - A Practical Technique". ESPMENA 10, Khartoum. Spring 1978. 68¢

Litwack, David M. and the language training staff. "Procedure: The Key to Developing an ESP Curriculum." EST Newsletter 12, Corvallis. June 1978. 90¢

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ISSUE 16
JULY, 1978

ENGLISH FOR SCIENCE AND TECHNOLOGY

KARL DROBNIC, EDITOR
ELI ADS A100

(503) 754-3006

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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FROM THE EDITOR:

This section of the Newsletter is, in this issue, given over entirely to a review of a new book important to the ESP movement.

BOOK REVIEW

ENGLISH FOR SPECIFIC PURPOSES. First Edition. Ronald Mackay and Alan Mountford. London: Longman, 1978. Pp.xii and 227.

This collection of articles is divided into three parts and focuses squarely on how the tasks of ESP are accomplished. Part I is titled "The Problem Surveyed" and includes an overview of what ESP is, as well as the complete texts of two needs assessment instruments that Mackay designed for his work in Mexico and Singapore.

Part II, "Approaches to ESP Textbook Design", includes contributions by John Swales, Henry Widdowson and J. Allen, and Martin Bates. While the intent of each article in this section is to describe the decisions that resulted in the writing of WRITING SCIENTIFIC ENGLISH, the FOCUS EST series, and the NUCLEUS EST series, to do so the authors supply historical background that provides interesting glimpses into the historical roots of the then little-known EST movement.

Swales recalls his years at the University of Libya in the late-Sixties and traces decisions that led to the writing of WRITING SCIENTIFIC ENGLISH. Working in isolation with colleagues who lacked professional training in such vital areas as curriculum development, behavioural objectives, and university level study skills, and making do with an almost non-existant research base, he forged one of the classics of the early generation of ESP classroom texts, a book that is still much in use today.

Martin Bates gives a somewhat similar account of the problems facing the staff of the then newly formed Language Centre at the University of Tabriz in the early Seventies. Working with trial, error and enthusiasm, but by now having the benefit of Henry Widdowson's early work at Edinburgh, the staff shaped the materials that have been appearing for the past few years as the NUCLEUS series.

There is heavy emphasis throughout the book on a view of ESP as an approach to language teaching in which language is first and foremost a means of communication. Authors make no case for EST or any of the other branches of ESP as a special register of language; rather, they emphasize the point that it is the purpose in ESP that is special and which should generate the shape and content of the language course. Since no language course can teach "everything", the authors concentrate on the development of processes to select language teaching material and to design courses that accurately reflect the ultimate use to which a particular group of students will put their language training.

Thus, in the third part of the book, "Case Studies: Syllabi and Materials", the twin themes of purpose and needs recur in each of the five studies contained therein. Each of these case studies details the problems encountered in designing language programs for students in specific learning situations and cover English for the following specific purposes: 1) social survival; 2) soil science; 3) advanced listening comprehension; 4) economics; and 5) study skills.

Each of the five studies shows a concern for what the students must use English for as contrasted to what their English language ability actually is, and then maps a course for the difficult terrain between. Though the book contains little in the way of needs assessment theory, it offers excellent models of programs based on learner needs. Each of the five case studies in this concluding portion of the volume offer generous samples of the materials used in teaching to the specific purpose the author is addressing. One will find in ENGLISH FOR SPECIFIC PURPOSES much of the theory that underlies the ESP movement, but throughout the focus is fundamentally practical, with one eye always on the person who will actually have to shape and teach an ESP program. I have seen no other volume that brings to better focus both how the tasks of ESP teaching are accomplished and from where the movement has sprung, and I personally recommend it as a valuable acquisition for the practicing teacher.

CONCLUSIONS FROM THE LOTTE THESIS

Editor's Note: Issue 14 carried the abstract from Charles Lotte's recently completed Master's thesis on the language of engineering lectures at UCLA. Below are some of the remarks in his "Conclusions" that question certain assumptions often made in ESL and suggest teaching strategies.

THE ENGLISH USED IN LECTURES TO STUDENTS OF ENGINEERING

By Charles Lotte, UCLA

CONCLUSIONS (excerpts)

A main benefit of the procedure followed in this study is that it forces a very close look at the situations in which the ESL student will use English. This examination can lead to unexpected results. For example, ESL classes, when they devote time to listening comprehension as it pertains to lectures, usually focus on note-taking skills. However, the lectures used in ESL practice do not in general follow a problem-solving methodology, which forms the basis of engineering lectures. This difference tends to reduce their appropriateness for engineering students. Even considering other students, however, lectures are a commonplace means of transmitting knowledge. Certainly their use is not restricted to the United States. Most ESL students at the college-level already possess the note-taking skill to a large degree.

As a result of attending the engineering lectures I feel it would be more worthwhile to focus on the skill of asking questions, which is not normally considered important for attending lectures. However, not one of the lecturers I heard ever hinted that he did not welcome questions. Almost all of the lecturers asked questions themselves. It is true that the amphitheater crowded with 250 persons discouraged questions in the chemistry lectures, but even in spite of the atmosphere engendered by these conditions, questions were asked, both by the lecturers and by the students. Questions formed an unexpectedly large part of the lectures.

The stress on asking questions should be considered in some ways as opposed to stress on the note-taking skill. Almost always the teaching of note-taking includes at some point the ESL teacher's reading what is a model of organization and expression to a class of students who are then expected to answer questions on what has been read (e.g., Yorkey, 1970, 174-180, and Morley, 1974, Unit Seven). This situation bears almost no resemblance to the engineering lectures I attended. There, the lecturer usually scribbled hastily on the blackboard while talking, asked and answered questions, referred to material covered in the past, performed simple experiments to illustrate points in the lecture and never read from books.

The note-taking skill, as it is usually taught in ESL classes, may be not only unnecessary but also counterproductive in that it can reinforce the view of the student as a passive note-taker. Several of the engineering teachers with whom I spoke complained that the foreign-students tended not to "think on their feet", that they held the instructors "too much in awe," and that they seemed not to be able to participate in the give-and-take of discussion. I do not assert the truth of these criticisms, which should form the subject of future research. But it is true that in many parts of the world questions are discouraged in lectures and relations between teachers and students are extremely formal. Practice in note-taking may emphasize the psychological distance between the students and their teachers, which, as shown by the criticisms above, at least some of the engineering teachers already feel to be a special problem of the ESL students.

Practice in asking questions at lectures, however, connotes a decidedly active role for the student. It involves not only language problems, but also cultural attitudes such as those towards risk-taking, standing out in a crowd, and public admission of ignorance or confusion. Also, the ability to interact on a basis somewhat of equality with teachers becomes increasingly important as one advances in school. Work on an engineering project depends more on a team concept than on that of one note-giver surrounded by a group of note-takers. Emphasizing the asking of questions and de-emphasizing note-taking, then, seems to correspond closely to the reality of the lecture situation and to the needs of the foreign students in the United States.

Another benefit of the present kind of study is that it indicates the structures which are basic to communication in a given situation. It reveals which structures are numerically important and which are not. A systematic study of these structures aided by graduated practice in the contexts in which the student will encounter them is the most rational way of developing a course. Course developers need descriptions of the situations in which the students will need English and their linguistic content--from the point of view of both vocabulary and syntax.

Thus the knowledge of how few structures are numerically important as far as engineering lectures are concerned is critical in the design of an ESL course, particularly where time is important. In general, despite the considerations mentioned earlier, it points towards an emphasis on quick and thorough recognition and processing of relatively few syntactical items instead of the acquisition of "everything." This knowledge can also be used to assign "weights" to various curriculum objectives. Thus, whereas in fact all the tenses might be taught during a course, certain ones would be considered so essential that even the slowest students would need to master them.

Besides revealing that relatively few tenses account for a large proportion of tense usage in engineering lectures, the present study indicates the existence of several phenomena which are neglected in ESL courses. This neglect occurs in spite of the fact that they occur with greater frequency than some of the more complicated tenses, upon which a considerable amount of time is usually spent. For example, Siamese twinning (Chapter four), the use of right and okay as tag questions, ellipsis, and the "equals" clause

(Chapter four) all occurred with much greater frequency than the past perfect tense, the modal shall, or tag questions. As far as the comprehension of engineering lectures is concerned, time spent acquainting the students with these phenomena could be more productive than that spent on some of the intricate, rare tense forms. These are the kinds of insights gained from corpus-based research into the needs of ESL students.

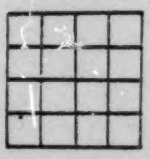
In general using concrete objects in the ESL lesson would be congruent with the focus of engineering lectures. Generating a class outline for a composition on "The Perfect Kettle" provides an example. In this exercise the object is to describe the class's conception of the perfect kettle. Basically this exercise confronts the class with a problem. The first step in its solution consists of eliciting the features each would want in a kettle, e.g., easy to pick up when hot, inexpensive to use, not easy to tip over, pretty, easy to clean, etc. The next step consists in grouping the features into categories, e.g., safety, maintenance, cost effective, etc. Next, the class generates an outline based on the categories, and, finally, each writes his or her own composition.

Many variations are obviously possible. The exercise lends itself to consensus-reaching, whereby the class works in small groups to arrive at a consensus regarding the hierarchy of qualities desirable in the perfect kettle. Activities involving oral presentations are also possible. In addition, the exercise is appropriate in a class with a mixture of students in it. Business people might stress the cost of production; artists, aesthetics; etc. But mainly this kind of exercise corresponds very closely to the kinds of problem-solving engineers are confronted with. In that connection it is important to note the following steps for generating an engineering model or prototype:

> First: Establish purpose.
> Second: List all the possible elements which may relate to the purpose, however remote.
> Third: Select those elements of Step One which are relevant to the purpose in Step Two.
> Fourth: Aggregate elements which can be chunked together by virtue of the strong structural, functional, or interactive connections between them.
> Fifth: Repeat Step Four several times until a model consisting of seven, plus or minus two, chunks emerges.
>
> (Rubenstein, 1975, 197)

The ESL teacher can immediately see and capitalize on the parallel of this procedure with that of designing a composition. The above describes an approach to a certain kind of problem and many different kinds of ESL activities can be designed utilizing it. These kinds of exercises relate, if not directly, at least in mood and tenor with the aims and activities of engineering students.

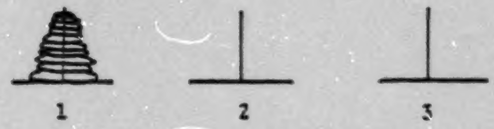
For practice with numbers, certainly an important part of engineering lectures, tape recordings of weather reports, and advertisements are particularly useful. Also, exercises wherein the students fill in squares are often challenging.



The students have a blank grid such as the above. The teacher says, "Put 3 squared in the first row, second column from the bottom." The student should put "9" in the appropriate square. If so-called "magic" squares are used, it then becomes an additional challenge for the students to perceive and explain their magical properties. Books describing magic squares and mathematical curiosities are available from any library. Exercises based on these, as well as from such sources as Scientific American, Popular Science, and Popular Electronics can all be used profitably in the ESL class.

Another exercise utilizes the "Tower of Hanoi" problem) from Rubenstein, 1975, p. 34). In Chapter three it was noted that the lecturer proceeded by a series of steps to enlarge the domain of what was known until finally the answer to the problem passed within this domain. The same concept of extending the problem-solver's domain of knowledge can provide a modus-operandi for a language lesson.

> Tower of Hanoi Problem:
>
> Eight discs rest on pin 1. What is the minimum number of steps in which you can move the eight discs to either pin 2 or pin 3? A step is defined to be the movement of one disc from one pin to another. You can remove only one disc at a time, and a larger disc can never rest on top of a smaller disc.



There is an inexpensive child's toy manufactured by Fisher-Price which contains plastic discs and pins or the teacher can manufacture what is necessary to illustrate the problem. The solution can be presented to (and by) students in oral or written form and tends to elicit the same structures as are used in the engineering lectures. Less obviously, much of the vocabulary is also the same, e.g., we have, now we get, so that gives us, etc. One of the main benefits of this kind of exercise is that students other than just those from engineering find them useful and interesting. Also, they lend themselves to use in learning-center type situations.

For suggestions on specific items which need special practice in ESL courses aimed at science/engineering students, the reader is referred to the conclusions of Chapters three, four, five, and six. The foregoing are examples of activities which correspond to what might be called the "over-arching" interests and orientations of these students. In addition to experimenting with new kinds of activities aimed at these students, this study also suggests the advisability of experimenting with various scheduling arrangements so that ESL students are not divided all of the time on the basis of English proficiency. Organization according to homogeneity of interests permits an efficiency of ESL instruction and kinds of activities not possible in groups with a wide dispersion of interests. With flexible scheduling presumably both kinds of class composition could be used, homogeneity of English proficiency for part of the time, and homogeneity of interests for the rest. Also, learning-center arrangements permit students to pursue their own needs and interests. In any event, as this study has shown, science/engineering lectures emphasize certain structures to the detriment of others and science/engineering students feel their ESL instruction should be oriented towards their academic field of interest. It is important that the ESL curriculum take account of these facts. Future research should aim at developing better ways to do this than are now available.

* * *

READING ENGLISH DISCOURSE, PILOT EDITION

The bibliography of Issue 14 carried a multiple entry under READING ENGLISH DISCOURSE, a set of pilot edition language lessons developed by the Research Committee, Tehran University Language Center. These are lengthy individual lessons ready for classroom teaching and much too long for complete inclusion in the Newsletter. I have selected one lesson, "Preparing a Scatter Diagram", which focuses on Time Order, and condensed it to fit publication here. The complete text of this and the other lessons of READING ENGLISH DISCOURSE are available through the Clearinghouse (See Bibliography, Issue 14).

Unit I: Time Order

Lesson 4: Preparing a Scatter Diagram

Pilot Edition

Passage A

(Editor's Note: This passage omitted. Passage A is a two-paragraph reading introducing scatter diagram preparation. Certain specific vocabulary items are introduced (with Farsi equivalents) and a number of "general English" words and phrases are underlined. The underlined items are the counterparts of the "sub-technical vocabulary" parenthesized in Passage B. First person plural narration is used. Oral Comprehension questions follow.)

Passage B

"One method for (determining) the (degree) of (relationship) between variables is to (prepare) a graph. The first (task) is to arrange these two variables in a table. If we have measured the height and weight of many people, we can use graph paper and mark the lines on the vertical (scale) for height and on the horizontal scale for weight. To prepare this table, we first locate the correct line on the vertical scale for the person's height, and then locate the correct line on the horizontal scale for the person's weight. After this, we mark a dot at the (intersection) of these two lines. Finally, we repeat this procedure for each person we have measured. By making the table in this way we will (obtain) a scatter diagram. It will contain as many dots as there are pairs of measurements."

In order to obtain information about the (frequency) of these measurements, we can (total) the dots on each horizontal line to the right of the diagram. This will (yield) the frequency for each height along the vertical scale. By repeating this procedure for the horizontal scale, we can obtain the frequency of each weight. The (sum) of the frequencies of either the horizontal or vertical scale will be (equal to) N, or the number of pairs of measurements."

Vocabulary Exercise 1

(Editor's Note: There are four vocabulary exercises, each of progressive difficulty. #1, largely omitted here, requires matching sub-technical vocabulary with general English vocabulary.)

Instructions: "Read the list of words from Passage B (a to h). Match each of these words with the underlined word in the phrases from Passage A which can be substituted for each."

(Exercise omitted)

Vocabulary Exercise 2

Fill in the blanks with words from the list. Each word may be used several times.

determine
frequency
obtain
relationship

scale
sum
total
yield

If we want to __________ the degree of __________ between two variables, such as height and weight, we can prepare a graph. From this graph we can __________ information about the __________ of each height on one __________, and the __________ for weight on the other. When we count all the dots, we will have the __________ or __________ of all of the pairs of height-weight measurement. We can count all of the dots on the vertical __________ and write the number below the graph. We can also __________ all of the dots on the horizontal __________ and write the number at the right of the graph. The __________ of the numbers below the graph will be the same as the __________ of the numbers at the right of the graph. This graph will __________ much useful information about the degree of __________ between the two variables.

Vocabulary Exercise 3

(Editor's Note: This exercise requires matching a word from the sub-technical vocabulary with a definition. One example is given.)

"Instructions: Match each word in the list with its definition.

(List omitted)

1. ________: a system of marks at regular distances on a line used for measurement."

(2-7 omitted)

Vocabulary Exercise 4

(Editor's Note: This exercise builds on #3, and requires the student to demonstrate his understanding of the definitions in #3 by completing seven carefully controlled sentences relating to scatter diagrams. I have omitted the entire exercise.)

Word Skills

(Editor's Note: There are five word skills exercises in this section of the lesson. #1 practices the prefix "inter-"; #2 the suffixes "-ant" and "-ent"; #3 the suffixes "-ance" and "-ence"; #4 the suffixes "-ancy" and "-ency"; and #5 integrates 1-4. All five exercises are omitted.)

Discourse Skills

Discourse Exercise 1

Reread the first paragraph in Passage B. This paragraph tells us the steps to follow to (prepare) ________________

Before we do this, we must (measure) ________

To prepare the table, what must we do first? (locate) ________________

What must we do then? (locate) ________________

What must we do after this? (mark) ________________

Finally, what must we do? (repeat) ________________

What four time expressions are used in the first paragraph to show sequence of events?

____

____

____

____

The second paragraph tells us how to obtain information about ________________

First, we (total) ________________

Then, we (repeat) ________________

After this, we ________________

Finally, we ________________

Discourse Exercise 2

Below is a list of steps for preparing a scatter diagram. They are not in the correct order. Number the steps as they appear in Passage B.

________ Using graph paper, mark the lines on the vertical scale for height and on the horizontal scale for weight.

________ Repeat this procedure for each person measured.

________ Measure people for height and weight.

________ Locate the correct line on the vertical scale for height and on the horizontal scale for weight.

________ Place a dot at the intersection of the two lines.

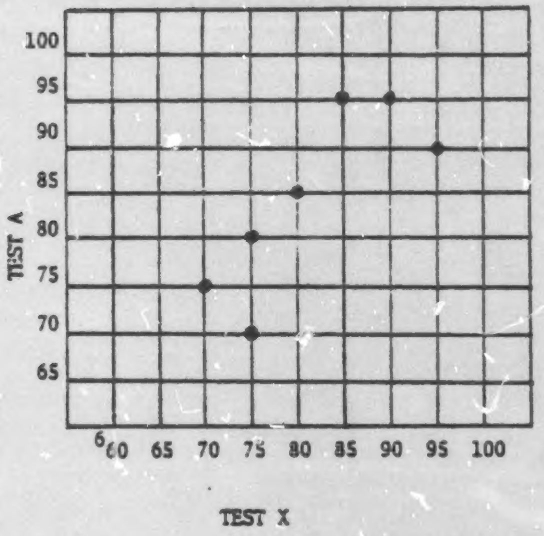
Discourse Exercise 3

Below is a list of heights and weights for several people. Using the graph paper below, prepare a scatter diagram of this information. Follow the steps given in Paragraph B: Mark the dots in the proper places, label the scales for height and weight, and write the sums of frequencies in the correct places.

Name	Height	Weight
Dariush	80	90
Ali	75	85
Hossein	75	80
Bardia	70	85
Maryam	70	80
Fatimeh	70	75
Resa	65	75
Shahin	60	70
David	60	65
Mehran	55	65

Discourse Exercise 4

The scatter diagram below shows the relationship between the scores of two different tests taken by the same students. The vertical line is used to show the scores on Test A. The horizontal line is used to show the scores on Text X.



Answer these questions using the information from the scatter diagram above.

1. What is the frequency for each Test A score of 80? __________
2. What is the frequency for each Test A score of 95? __________
3. What is the frequency for each Text X score of 70? __________
4. What is the frequency for each Text X score of 75? __________
5. How many people took these tests: __________

Discourse Exercise 5

Read the passage below and answer the questions.

To find the average score of a test for a class of students, we must do several things. First, we must give the test to the students. Next, we mark the tests, and later we add all of the scores. Finally, we divide the sum of the scores by the total number of students. The result will be the average score for the class.

In the passage above, what four time expressions are used to show sequence of events?

____

____

____

____

Discourse Exercise 6

Below is a list of the steps to be followed in finding the average test score for a class, as given in the passage in Discourse Exercise 5 above. These steps are not in the correct order. Fill in the blanks with the time expressions used in the passage above, and number the steps to show their correct sequence.

Step

____ ______________ add all of the scores
____ ______________ divide the sum of the scores by the total number of students
____ ______________ mark the tests
____ ______________ give the test to the students

READING EXERCISE

Editor's Note: omitted)

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BIBLIOGRAPHY

The articles listed below are newly available from the Clearinghouse on an "at cost" basis, which covers the cost of reproduction and mailing. No profit accrues to the Clearinghouse. Please make checks payable to: OREGON STATE UNIVERSITY.

Hajjaj, Ali H.S. A Suggested Approach to the Planning of a Functional Syllabus for English Teaching for the Secondary School in Kuwait. Master's dissertation, University of Lancaster, Department of English, August, 1973. $2.80

________. A Suggested Type of Functional Language Lab Material (A talk based on a project submitted to University of Lancaster in June, 1973.) Ministry of Education, Kuwait. 48¢

________. Changing Trends in ELT in Kuwait. Paper given at IATEFL 9th Home Conference, January, 1977. Oxford, England. 45¢

________. Developing Professional Motivation of EFL Teacher in Kuwait. Paper given at 10th IATEFL Conference, London, April, 1978. 45¢

________. Recent Trends in Educational Media for ELT in Kuwait. Programmed Learning and Educational Technology, February, 1978. 37¢

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________. Some Misconceptions in English Language Teaching in Kuwait. Ministry of Education, Kuwait. 70¢

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Anthony Read, of the International Division of Oxford University Press, would like to contact anyone involved in running ESP/EST courses for American companies in Saudi Arabia. If you are such a person, or know someone there who would appreciate being contacted by Mr. Read, please write: Anthony Read, International Division, Oxford University Press, Walton St., Oxford, OX2 6DP England.

****.*******

EST TEACHER TRAINING INSTITUTE, OSU - EIL

The 1978 EST Teacher Training Institute got underway July 31 with participants from North Africa, Latin America, and the US. In addition to the scheduled activities, a number of guests from various EST programs will be stopping by. Those who will be in Oregon during August should feel welcome to stop by and meet their colleagues at the Institute.

ADDRESS REMINDER

Please be sure that mail to the Clearinghouse bears "ELI AdS A100" within the address. A number of checks have gone astray because this was omitted. Business offices issuing checks in "window" envelopes are especially guilty of this omission, so please remind them when putting in purchase orders.

MASTER'S DISSERTATION AVAILABLE

EDITOR'S NOTE: The past few years have seen a great amount of research and practical teaching methods relating to EST issue from Kuwait. Making the changeover to an EST approach entails theoretical considerations about the syllabus itself, and the Clearinghouse now has available a large body of work from the Inspector General of ELT for the Ministry of Education, Kuwait. (See bibliography.) Excerpted below is the introduction to Inspector General Ali H.S. Hajjaj's Master's dissertation from the University of Lancaster.

A SUGGESTED APPROACH TO THE PLANNING OF A FUNCTIONAL SYLLABUS FOR ENGLISH TEACHING FOR THE SECONDARY SCHOOL IN KUWAIT

By Ali H.S. Hajjaj

INTRODUCTION

The present paper is an attempt to define the requirements of a functional syllabus for the teaching of English in the Secondary Schools in Kuwait. In the first section a comparison is made between the structural approach and the (communicative) functional approach to Foreign language teaching and the conclusion it draws is that it is possible to apply the (communicative) functional approach in a given EFL situation provided that specific language needs of the learners are identified and taken as the basis for the organization of the syllabus.

In an attempt to define the communicative needs of the Kuwait Secondary School learners, a questionnaire was conducted on a group of Kuwaiti students studying for tertiary education in the U.K. Section 2 of this paper analyses the questionnaire replies and the uses of English Kuwaiti students need in an English speaking community are identified. A tentative generalization, based on the results of the questionnaire, for other Kuwait Secondary leavers' English language needs is made.

Section 3 outlines a functional syllabus, which takes the needs for English, identified in Section 2, as the basis for its organization.

The fourth and final section discusses the role of the teacher and the teaching materials in the application of the proposed syllabus; and suggestions for a teacher-retraining programme are given.

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KARL DROBNIC, EDITOR
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FROM THE EDITOR:

The latest Heinemann Education Books catalog lists the titles below in their EST section. The contact person for further information is Gill Wolf, Heinemann Educational Books, 4 Front Street, Exeter, New Hampshire 03833 USA. (603) 777-0534.

A FIRST COURSE IN TECHNICAL ENGLISH

Lynette Beardwood, Hugh Templeton, Martin Webber

An elementary two-book course for foreign students at secondary schools or colleges who need English for their technical occupations or studies. These materials are the result of extensive research and experimental teaching at a large technical college overseas.

The course has been specifically designed so that technical students can learn the kind of English they need from the outset. The starting-point assumes a low level of English and Book 1 can be used with near Beginners.

The texts (with the aid of diagrams) present genuine technical concepts, instruction and description. Out of this technical content, the necessary work on structure and vocabulary is developed. Each book contains ten units based on a technical theme. A unit is sub-divided into three independent sections, each section containing listening and reading passages plus related oral and written exercises. There is a detailed Teachers' manual for each part of the course.

Publication November, 1977.

Students' Book 1	28755
Teachers' Book 1	28756
Tape for Book 1	28757
Students' Book 2	28758
Teachers' Book 2	28759
Tape for Book 2	28760

All in preparation. Available early 1978.

READ AND NOTE

English study skills for science students

Keith Purvis

This English as foreign language course is for science students, particularly students of medicine, pharmacology, and biology, who are studying at colleges or universities where English is the medium of instruction. It is designed to help students to effectively come to grips with the study skills of reading scientific texts in English and making notes from them.

The course consists of 15 units of work. The reading passages are adapted from authentic texts which have been chosen for their scientific relevance and interest, and not just to make a teaching point. The note-taking work introduces note-taking techniques simply and systematically and encourages students to use them in a practical way. At the same time strategies to improve reading comprehension and reading speed are developed.

The Teachers' Edition contains the complete text of the Students' Book together with detailed teaching notes and suggested answers.

Available early 1978.

RECHERCHES ET ECHANGES

We have received a copy of a journal, RECHERCHES ET ECHANGES, published in France which is very interested in the ESP movement worldwide. The June, 1978 issue (Vol. 3, #2) received here contained two articles in English on the subject of ESP. These were, "ESP--A Question of Change or Just Motivation?" by Harry Wainman of University College in Swaziland, and "Planning a One-To-One Course for the Teaching of Job-Specific English" by Adrian Pilbeam of York, England. For copies of the journal, address queries to: Editors, RECHERCHES ET ECHANGES, ESIEE, 81 Rue Falguiere, 75015 Paris, FRANCE.

* * *

EXPANDING THE FRONTIERS OF EST INVOLVEMENT

EDITOR'S NOTE:

The excerpts below are taken from a letter to the Clearinghouse written by Dr. Mackie Blanton. Points that he makes have been on my mind for some time, yet I have seen no work within the profession addressing the relation between EST as a linguistic discipline and the clientele we are gearing up to serve. As David Litwack pointed out in Issue 15, clients seem surprised when a subject specific EST course cannot be pulled off the shelf. They are not always enthusiastic about paying for developing a course.

Dr. Blanton's letter touches on one aspect of the solution to this problem: a higher profile at conferences and sessions where science and technology issues are discussed. Language training, as an integral component of the scientific and technological hardware packages being marketed in the non-English speaking world, is an issue that should be raised and discussed outside the conferences of our profession.

Dr. Blanton's comments and the information he relays are indicative of the larger concerns of the EST profession. We are not an isolated academic phenomena, but a cross-cultural, interdisciplinary tool. As we refine the techniques of EST, we become increasingly valuable to those of our clients, be they nations, corporations, or individuals, engaged in many of the great international movements of the decade, the tremendous development schemes of the OPEC nations, the policies of technology transfer pursued through various government programs, and the operations of multinational corporations. Thus, having now established ourselves as a legitimate field of interest within ELT, we need now to broaden the delivery of what we have to offer.

I thus hope that others with information similar to that contained in Dr. Blanton's letter below will take the time to relay it to the Newsletter, where it can then be passed on to the readership.

EXCERPTS FROM THE LETTER OF:

Dr. Mackie Joseph-Venet Blanton,
Illinois Institute of Technology

"If an explanation of why I have sent these titles to you is necessary, let me say this: although the content of these documents does not pertain to ESL, ESP or EST, the social, political, academic, and governmental interests which motivate such conferences or committee hearings will in the long run, I feel, influence the direction curriculum development will have to take. Thus, the linguist, as curriculum designer, will need to be aware of the thinking of governments regarding science and technology teaching. Teachers of science and technology do hold international conference on how to convey to students the scope of western technology or indigenous third world technology--without ever once giving thought to the language of instruction. Furthermore the purpose of such conferences is to implement change at the level of public policy, and linguists are often not present as part of the operating personnel of such conferences to facilitate such change at the level of language advocacy."

"We need linguists at such conferences more and more; and I feel that the EST Clearinghouse Newsletter is the way to make more of us aware of this need. At such conferences, although teachers of science and technology are more numerous, the presence of philosophers interested in the ethics of education has become substantial. There is also a marked increase at such meetings in the number of recent Ph.D.'s from education with a concern for the teaching of composition."

"The strategies of rhetorical competence, I feel, will eventually be redirected, perhaps misdirected even, because of various changes in the pedagogy of science teaching."

*Dr. Blanton supplied the following information sources. (These materials are not available from the Clearinghouse.)

1. U.S. Preparation for the 1979 U.N. Conference on Science and Technology for Development, (Vienna: August of 1979), A Hearing before the Subcommittee on Science, Technology, and Space of the Committee on Commerce, Science, and Transportation, United States Senate, Ninety-Fifth Congress. First Session, December 15, 1977. Serial No. 95-59 (Washington, D.C.: U.S. Government Printing Office).

2. Edited Transcript of the Department of State November 17, 1976 Meeting on Preparation for the 1979 U.N. Conference on Science and Technology for Development.

3. "Technology and International Development: Is There a Role for U.S. Engineering Schools", Dr. Robert P. Morgan, Chairman, Department of Technology and Human Affairs, Washington University, St. Louis, Missouri. A Paper for the Session of Effects of Changing Social Priorities on Engineering and Technology in the United States and Abroad, Annual AAAS Meeting, Washington, D.C. February 16, 1978.

4. Abstracts of Papers presented at the Annual International Conference of the American Society for Engineering Education, University of British Columbia, Vancouver. June, 1978

5. "Results of Survey on Science, Technology and Public Policy Networks", Office of Public Sector Programs, AAAS, January 24, 1978.

* * *

THE BUDGET'S ROLE IN THE ADMINISTRATION OF ENGLISH FOR SPECIAL PURPOSE PROGRAMS

By Erik Christy, Oregon State University

INTRODUCTION

In an earlier series of articles, general administrative considerations for the planning and recruitment of English for Special Purposes programs were described. Supporting these administrative procedures should be the kind of budgetary process which provides for both pre-planning protection as well as for a sufficient number of line expense items that will adequately support a program of high quality. What follows is a number of suggestions for budgeting ESP Programs at a public university campus and a methodology for establishing adequate budget projections for future reference and comparative program planning. A model for construction budgets will also be offered with examples of formats currently in use at Oregon State University.

I. ESTABLISH AN ACCOUNTING FORMAT

Standard University Procedures

Budgetary movement on public university campuses usually identify income and expense items numerically according to state legislated transaction codes. These "trans codes", as they are called, represent broad group expenditures and also identify the various components or types of individual items within each general category. For example, a 1000 expense classification may indicate the category for all academic personnel, while a 1100 sub or secondary code refers to only the academic personnel who are employed during the summer months. Every type of academic personnel, including graduate and teaching assistants will be indicated by an individual subcode. It is important to be thoroughly familiar with the budgetary system of the university for three reasons:

1. Familiarity allows the ESP administrator to take advantage of an existing accounting system from which to select a wide range of expense categories to fit the unique budgetary categories necessary for specialized language programs.

2. The process produces a monthly computer printout reflecting expenditures for each category initially programmed into the accounting system. A printout may be either in summary or detailed form, but its importance lies in the fact that ongoing expenditures will be automatically itemized by amount, deducted from successive balances, and cataloged permanently for future reference.

3. A number of special programs may be simultaneously monitored. This is done by placing what is called an "Institutional Use Code" or "IUC" following the administering unit's account number. For example, if the ESP programming is administered through an English Language Institute or through a Division of Continuing Education having an account number of 30-456-857, an IUC Code representing a particular ESP program is attached to the account number. IUC Codes are usually comprised of three letters which might stand for the phonetic name of the particular ESP program involved. Thus, if a pilot program were being conducted by the English Language Institute at Oregon State University for Riyadh University (RU) the program would be identified as:

   30-456-857 RUA.

   A second program administered by the same Institute for the same client would be identified as:

   30-456-857 RUB.

   As many IUC Codes as programs being simultaneously administered may be attached to the same account number. A separate printout will be available for each program. Thus, if we plan to conduct an ESP program for a group of technicians from Tripoli University for the first time, the account number might read, 30-456-857 TUA, the final "A" showing this was the first program sponsored by Tripoli University. Succeeding IUC Codes would show TUB, TUC, and so on.

Selecting Budget Categories

The budget categories of ESP programs and those cost entries commonly seen in the budgets of regular academic departments need have little similarity. In short, once the ESP program has established an accounting footing upon which to build its budgets, the budget itself can reflect whatever the implementing administration believes the language client's program will need to be successful. In order to categorize these needs, however, an outline of services should be constructed together with any personnel required for each service. Illustration #1 suggests a schematic for analyzing these needs and services. The Trans Codes are hypothetical but point out the need for assigning a numerical reference for each cost item for rapid identification when planning and perhaps shifting prioities:

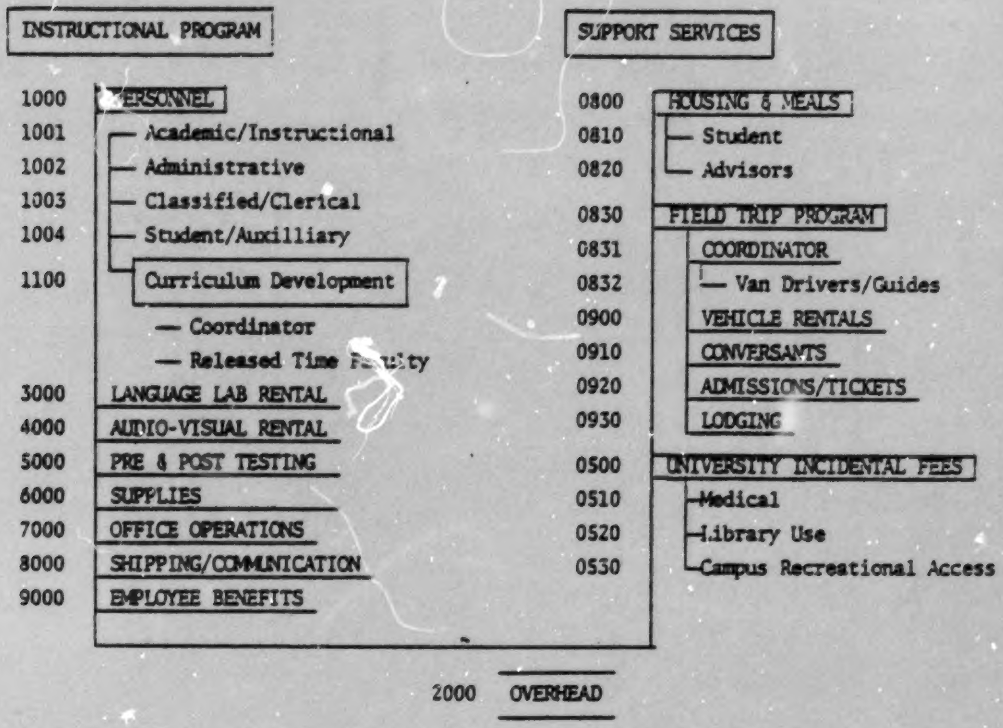
INSTRUCTIONAL PROGRAM
1000 PERSONNEL
1001 Academic/Instructional
1002 Administrative
1003 Classified/Clerical
1004 Student/Auxilliary
1100 Curriculum Development
— Coordinator
— Released Time Faculty
3000 LANGUAGE LAB RENTAL
4000 AUDIO-VISUAL RENTAL
5000 PRE & POST TESTING
6000 SUPPLIES
7000 OFFICE OPERATIONS
8000 SHIPPING/COMMUNICATION
9000 EMPLOYEE BENEFITS
SUPPORT SERVICES
0800 HOUSING & MEALS
0810 Student
0820 Advisors
0830 FIELD TRIP PROGRAM
0831 COORDINATOR
0832 — Van Drivers/Guides
0900 VEHICLE RENTALS
0910 CONVERSANTS
0920 ADMISSIONS/TICKETS
0930 LODGING
0500 UNIVERSITY INCIDENTAL FEES
0510 Medical
0520 Library Use
0530 Campus Recreational Access
2000 OVERHEAD

ILLUSTRATION I (PRE-PLANNING SCHEMATIC)

It's important not to feel confined in the choice of budget categories. ESP programs contain many legitimate expense concerns not shared with other special academic programs at the university. The point here is to emphasize that an ESP budget should select freely from among available transaction codes and incorporate any of those which clearly identify a budgetary activity of use to program objectives. In an earlier article, we mentioned the necessity of establishing working rapport with every administrative unit of the university whose expertise would likely be of benefit to the planning of an ESP program. The budgetary process assumes no less. The Office of Business Affairs is an important consultant when setting up an ESP budget format. Very often, a needed service or activity of an ESP program is not clearly defined within the codes, and a judgement must be made as to what broad group expenditure and which associated component category would best define the activity involved. The need for a good consulting relationship is obvious. We can conclude this point by emphasizing that ESP programs need the supporting service and stability of a standard university accounting procedure for two main reasons:

1. ESP programs need greater legitimacy on university campuses.
2. Legitimacy comes about by constructing certain basic programming operations in terms easily understood by all administrative units of the campus operational environment.

II. THE BUDGET AS A PLANNING TOOL

Following the adoption of an accounting format and the selection of flexible expense categories, the ESP budget acquires value as a programming tool for several necessary elements of ESP administration:

Pre-Planning Protection

Initiating a special language program involves some risks. The first risk is that of cancellation by the sponsor at anytime along the planning process. It follows, therefore, that any ESP administration must decide to what extent program development will continue in the absence of some financial guarantee or compensations for efforts expended during an initial planning period. Budgets must take into account these initial expenses even though they do not necessarily have to be the subject of a formal budget category in the accounting format. The specific questions that need attention in this area are:

1. What expenditures in both time and staff will constitute elements of exploratory negotiation as opposed to items requiring reimbursement? These exploratory activities need to be enumerated and communicated to the potential sponsor in order to provide an initial framework for preliminary programming.
2. At what point will the ESP administration

require a guarantee of financial compensation; and what specific planning activities will constitute a legitimate claim for reimbursement? These activities will no doubt vary with each program due to the differing objectives of the sponsor. None-the-less, the need for guidelines is essential.

By way of illustration, we can consider Oregon State University's experience in past program planning for a group of university students whose School of Medicine desired an intensive review of medical English. In addition, the Department wanted to familiarize its students with American methods of nursing and medical school education and provide an extensive exposure to the American health care delivery system, both public and private. The English Language Institute began a very wide series of contacts to determine which medical personnel in the state could provide staff for on-site medical tours and lectures. Approximately 23 hours of secretarial time were used in communications alone. Nearly two weeks were spent in an administrative analysis of what the language staffing needs would be and what curriculum development release time had to be anticipated. Requests were made of the Oregon Health Sciences Center to determine which laboratory, classroom, and hospital ward facilitites would be able to plan demonstrations for the number of students that were expected. Oregon State University's Department of Pharmacy became involved in determining which local public and private hospitals might be included in the overall program planning.

When these investigations had been concluded and several tentative dates had been reserved for demonstration field trips, a detailed proposal was written, outlining a preliminary program format, and requesting certain additional information from the sponsor regarding the participants' language level and background. This proposal also included an outline of the subject matter that would comprise the special purpose language component, an apportionment of the number of hours for each topic per week, and beginning and ending dates determined in conjunction with a special arrangement for housing and meal service.

Three weeks after the sending of the above proposal and toward the end of preparing a detailed budget for the sponsor's comments, the Institute received word that higher authority at the sponsoring university had decided to send the group to England even though interim communication between the Institute and the School of Medicine had been totally encouraging. Following this experience, the following guidelines were established:

1. While an obvious amount of preliminary investigation is non-delineative, exploratory activities will be reimbursed if these are expected to require more than two weeks of total continuing domestic planning time.
2. A planning fee of $500.00 will be assessed, one half of the fee being refundable if the sponsor, upon receipt and assessment of the preliminary information provided by the Institute, decides not to proceed.
3. Should the sponsor decide to proceed, the remainder of the planning fee will cover the total costs for a detailed proposal, including tentative course content, a detailed preliminary budget, and a description of the availability of any special services or extra curricular activity which, in the judgement of the Institute, provides for a high quality implementation of the sponsor's program goals and objectives.

The second major risk involved in ESP planning is one concerning timing. Timing here refers to the total available planning period from receipt of the sponsor's conception of the program's starting date. The main problem involved is one of communications; the rate at which negotiations, information, and preliminary arrangements can be exchanged. Pre-planning in ESP programs often misses the hidden costs involved with a delay or, worse yet, unclarity or indefiniteness in communications. Here, we are speaking about problems related to:

1. The need to rush information by cable or phone due to inadequate planning time.
2. Undependability of mail systems.
3. The need for sponsors to translate the proposal into the native language for decisions by higher authorities having little facility in English.
4. Cultural differences as to concepts of time, planning, requirements, and procedures necessary for securing mutual institutional commitments of staff and supporting resources.
5. Mutual unfamiliarity with the current timbre of relations between the sponsoring agency or institution and the American immigration officials of a particular diplomatic post.

In analyzing risks involving timing, budget considerations of an ESP administration must be those of planning for contingencies. Of course, re-couping of unanticipated expenses is always an option by including such costs indirectly within some category of the budget after the fact. However, this type of recovery constitutes a reaction to inadequate initial budget planning rather than utilizing the budgetary process as a planning tool to anticipate such problems.

We do not interpret risks as being negative judgemental factors in deciding whether a sponsor's program will be successful. In many cases, the sponsor itself is similarly upset and frustrated by timing problems. The point is that budgetary formulation is more involved than simply establishing the format and choosing expense categories. It should also be an implement for anticipating problems and protecting the ESP administration from the financial risks involved. An ESP budget should contain a flexible enough structure to deal with possible expense contingencies prior to their unexpected occurrence. To what degree such occurences can be anticipated often relates to whether or not an intermediary agent is involved in locating a program in the United States which meets the sponsor's objectives. The amount of budgetary flexibility required is frequently reduced when an American consultant acts as facilitator, maintaining direct lines of communication with the sponsor.

External vs. Internal Budgeting

At the point where a proposed budget is ready for the sponsor's consideration, a decision should be made as to the extent of detail to be disseminated. This decision is not to be based on desires for camouflage, deceit, or other obviously unprofessional jugglery, but rather upon the degree of likelihood that any or all of the following might occur.

1. A change in number of participants requiring adjustments in staffing, supplies, and housing services.
2. Delays in arrival, fostering possible reduction of costs as the result of the cancellation of planned activities.
3. A shift in program emphasis, requiring the addition or deletion of special services.
4. Outright errors in original calculations as a result of honest mistake or inaccurate cost analysis.
5. Requests for special payment schedules outside of the initially agreed upon procedures. This is often related to problems of exchange rate or funding procedures of the sponsoring agency when honorable payment is intended but altered to better fit the sponsor's common practices.
6. Inaccurate or incomplete information about the characteristics of the participants which makes conclusive planning impossible prior to arrival. This problem is often exemplified by the unavailability of standardized test scores and examples of previous language work with which to assist curriculum formulation and textbook ordering.

At Oregon State University, we have found it helpful to provide the sponsor with a summary of the budget for which we keep a detailed replica. The summary is distributed to the sponsor and contains the total figures for each budget category represented by transaction codes on the detailed replica. All reference numbers coincide so that a sponsor's request for substantiation of any particular total can be accurately and easily produced. Illustration #2 (a, b, and c) shows a partial example of the detailed budget form currently in use. Reference numbers are included on the form for purposes of locating specific budget items quickly for discussion and review. The Trans Code conforms to university accounting procedure and computerization. We have found it advisable to show both group and individual program costs, and the form provides space for a description of each expenditure. The Adjustment column is use internally to record budget changes as the result of program alterations. Illustration #3 shows the format for the budget summary. Trans Codes are eliminated, and only the main expense category headings are maintained. The sponsor is encouraged to comment on each expenditure. We feel that in combination, this budgetary system provides for the following:

1. Uniformity of reference
2. Flexibility
3. Conformity with university accounting procedures.

BUDGET PROPOSAL
English Language Institute
SPECIAL PROGRAMS

PROGRAM______________
I.U.C. CODE__________

DATE_________ PAGE ____
PRELIMINARY____ FINAL___

REF NO.	TRANS CODE	PROGRAM ITEM	COSTS		ITEM SUMMARY	ADJUSTMENT
			Group	Person		
		FEES English Language Institute	$	$		
1	0899	English Language Institute-Special Services				
		Oregon State University-Tuition				
2	1101	PERSONAL SERVICES Staff - Academic				
3		Instructional				
4		Administrative				
5	1103	Graduate Teaching Assistants				
6	1104	Graduate Research Assistants				
7	1201	Supplemental Academic Pay				
8	1203	Summer Term Academic Pay				
9	1204	Other				
		TOTAL				
10	1301	CLASSIFIES SALARIES Staff - Classifies (exceeding 90 days)				
11	1401	Other Staff (90 days only)				
		TOTAL				

ILLUSTRATION 2(A) DETAILED BUDGET FORMAT (WHOLE FORMAT)

PROGRAM____________________
I.U.C. CODE NO.____________

REF NO.	TRANS CODE	PROGRAM ITEM
		STUDENT PAY
12	1501	Undergraduate
13	1502	Graduate
14	1503	College Work-Study Undergraduate
15	1504	College Work-Study Graduate
		TOTAL
		OTHER PAYROLL EXPENSES-OPE
16	1701	Academic-Classified Benefits
17	1702	Student Benefits
		TOTAL
		SERVICES/SUPPLIES
18	2100	Office
19	2102	General Operating
		TOTAL
		COMMUNICATIONS/SHIPPING
20	2201	Telephone/Telegraph
21	2202	Postage
		TOTAL

ILLUSTRATION 2(B) DETACHED BUDGET
(PARTIAL SECTION)

PROGRAM____________________
I.U.C. CODE NO.____________

REF NO.	TRANS CODE	PROGRAM ITEM
		CAPITAL OUTLAY
33	4100	Equipment
		TOTAL
		GRANT-IN-AID
34	5301	Oregon State Univ. Tuition
		PARTICIPANT SUPPORT Oregon
35	5503	State Univ. Incidental Fees
36	5504	Travel Payment Participant
37	5505	Book Allowance
38	5506	Room and Board
39	5507	Group Activities
40	5599	Miscellaneous Participant Support
		TOTAL

ILLUSTRATION 2(C) DETACHED BUDGET
(PARTIAL SECTION)

BUDGET PROPOSAL SUMMARY
English Language Institute
SPECIAL PROGRAMS

PROGRAM____________________ DATE________________ PAGE______
PRELIMINARY______ FINAL________

REF NO.	PROGRAM ITEM	COSTS		DESCRIPTION	SPONSOR COMMENT
		Group	Person		
1	FEES English Language Institute				
	English Language Institute-Special Services				
	Oregon State University-Tuition				
2	PERSONAL SERVICES				
10	CLASSIFIED SALARIES				
12	STUDENT PAY				
16	OTHER PAYROLL EXPENSES - OPE				
18	SERVICES/SUPPLIES				
20	COMMUNICATIONS/SHIPPING				
22	RENTALS/LEASES				
25	SERVICE FEES				
29	TRAVEL				
32	INDIRECT COSTS (OVERHEAD) OPE				
33	CAPITAL OUTLAY				
34	GRANT-IN-AID				
35	PARTICIPANT SUPPORT				

ILLUSTRATION 3 - BUDGET SUMMARY (WHOLE FORMAT)

CONCLUSION

This article offers a number of suggestions related to the planning and use of budgets in ESP programs. The budgetary process will be more successful if it is related to a standardized current budgetary process, one that is universally understood by all segments of the university. The form should be flexible enough to allow ESP administrations to include a wide variety of expense categories based on experience and upon the particular needs of the sponsor. A budget is not only an accounting mechanism but also a planning tool for anticipating unforeseen costs and projecting future expenditures. The formulation of a detailed budget should only be done within an established policy defining the parameters of exploratory negotiation as opposed to detailed program analysis and planning which incur substantial expenditures in both time and effort. Contingencies should always be included as a possible expense item, and there should be a correlation between an external budget summary, used for the sponsor's consideration, and a detailed breakdown for internal justification, adjustment, and planning.

The primary goal for a sound budgetary system in ESP administration is to adequately provide for educational services required by a sponsor while maintaining an accountability that allows for both flexibility as well as improvement in services through comparative budgetary analysis and prediction. The above suggestions describe one method by which a major university conducting ESP programs attempts to meet these objectives.

****

SUBSCRIPTION FORM

Year 2 subscriptions cover the period of April, 1978 to March, 1979. Mid-year subscriptions are back filled to Issue 13 (April, 1978). Prices are per below. Make checks payable to OREGON STATE UNIVERSITY. Mail to: EST Clearinghouse; ELI AdS A100; OSU; Corvallis, OR. 97331 USA.

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ENGLISH FOR SCIENCE AND TECHNOLOGY

KARL DROBNIC, EDITOR
ELI ADS A100

(503) 754-3006

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

A SERVICE OF THE ELI, OREGON STATE UNIVERSITY; INITIALLY SPONSORED BY AID/NAFSA LIAISON COMMITTEE

FROM THE EDITOR:

The 1978 EST Teacher Training Institute, cooperatively sponsored by Oregon State and the Experiment in International Living, came to a conclusion August 25 with participants and administration alike proclaiming John Lackstrom's lectures and explications one of the finest teaching efforts in their collective experience. Participants departed with enthusiasm and expertise while administration made the decision to go ahead with plans for another EST Institute in 1979.

Guest lecturers who made special one-day presentations at this year's Institute included Jaime Ponce, director of the TRANSLEX ESP program in Peru, and Mitchell Sacks of the Office of Career Education in New York City. The guest lecture series was concluded in the final week of the Institute when participants gathered for a Thursday morning breakfast and informal discussion with Mary Todd Trimble and Louis Trimble of the University of Washington.

Next year's program will again be hosted by OSU and co-sponsored by EIL. An expanded program with a greater number of lecturers is planned. John Lackstrom will return and has been appointed curriculum coordinator. Lecturing with Lackstrom will be Mary Todd Trimble and Louis Trimble, U.W., Steve Hanchey, EIL, and Karl Drobnic. Henry Widdowson will be coming from England to provide British commentary and expertise, as will either Martin Bates or Tony Dudley-Evans, editors of the popular NUCLEUS EST series. Course descriptions for the Institute are forthcoming. The dates are 30 July to 24 August, 1979.

At this stage in the Institute planning we are seeking input from the readership about the types of courses they would like to have available. I would therefore very much appreciate hearing from all of you on this topic so that I can pass the information on to the lecturers.

Information on tuition, application procedures, and participant selection criteria will be carried in upcoming issues of the Newsletter.

*****

Longman publishing now has two more texts of the NUCLEUS EST series available. The titles are NUCLEUS: NURSING SCIENCE and NUCLEUS: ENGINEERING. They are available in the United States through Longman Publishing, 19 West 44th Street, New York, NY. 10036.

*****

The ESP MALS Journal special issue is now available by sending two pounds to Chris Kennedy, Editor, MALS Journal, P.O. Box 363, University of Birmingham, Birmingham B15 2TT ENGLAND. The issue contains a number of articles on various aspects of ESP from around the world, and is personally recommended by this editor.

*****

An outgrowth of the EST Textbook Review course at this summer's 1978 EST Institute is the publication, 38 ESP TEXTBOOK REVIEWS. This is a 180 page volume. Reviews are based on a standardized format and cover textbooks from a number of different publishers. It is available through the Clearinghouse. Cost is $6.00 domestic, $US 9.00 overseas (air mail).

*****

COURIER NEEDED

The Clearinghouse has been trying for the past 11 months to get some materials through to correspondents in ZAIRE. If anyone is going that way and can take a packet of articles, please let me know. Attempts to mail packets in have met with their disappearance.

ENGLISH FOR SPECIFIC PURPOSES: JOURNALS AND OTHER PUBLICATIONS

By Marjorie Morray,
INELEC Program, Algeria

Below is a list of twenty journals and publications that include or specialize in English for Specific Purposes. It is by no means definitive and needs to be augmented by suggestions from EST Newsletter readers.

Al-Manakh

Al-Manakh is the in-house journal of the English Language Unit of the College of Engineering and Petroleum of Kuwait University. It combines practical articles on the teaching of English for Specific Pusposes, e.g. "Teaching Outlining to the ESP Student", "The Science Liaise Project--A Model for Program and Materials Revision", news about services and facilities at Kuwait University, and reports on events throughout the world of interest to ESP specialists. Al-Manakh is a useful contributor to the discipline of English for Specific Purposes. To be put on its mailing list, write to:

David Blackie, Editor
English Language Unit
College of Engineering and Petroleum
Kuwait University
P.O. Box 5969, Kuwait

Alsed

Alsed (Anthropology and Language Science in Educational Development) is a newsletter published by the Division of Structures, Content, Methods and Techniques of Education, UNESCO. Although the issue examined for this report was devoted to a number of items, none of them ESP, items focusing on English for Specific Purposes have appeared. The newsletter includes brief articles, announcements of meetings and conferences, reviews of journals and books, and news briefs.

For subscriptions write to ALSED, Division of Structures, Content, Methods and Techniques of Education, UNESCO, 7 place de Fontenoy, F-7500, Paris, France.

Creativity--New Ideas in Language Teaching

This newsletter reflects the language-teaching curriculum of the Instituto de Idiomas Yázigi in São Paulo, Brazil. The July 1977 issue describes the Institute's JEP (Junior English Program), which it characterizes as a "rather unique pedagogic-ecological approach." The Institute is located at Av. 9 de julho.3. 166-CEPO 1406 - São Paulo, Brazil. .

Edutec

Edutec, written in both Spanish and English, is published by the Secretariat of the Administration of Programs, Systems and Technology of the Autonomous Metropolitan University of Mexico. The publication deals with problems in general education. However, issues #3, #6 and #9 respectively, specialize in the instruction of foreign languages for specific purposes with articles by Swales, Owen, Mackay and Mountford. For information write to Edutec Enseñanza-Aprendizaje: Nuevas Perspectivas, Boulevard Manuel Avila Camacho No. 90, Naucalpan, Mexico, Apdo. Postal 325, Mexico 1, D.F.

English for Specific Purposes

Ron Mackay and Alan Mountford are the editors of this anthology, which is published in the series Applied Linguistics and Language Study, general editor Christopher N. Candlin. It includes articles by most of the British "greats" in English for Specific Purposes, e.g. Mackay, Mountford, Swales, Allen, Widdowson, Bates, etc. This volume includes material on text book and syllabus design, course design, materials development, and theoretical-practical considerations in study skills instruction. The publisher is Longmans and the date, 1977.

English for Specific Purposes: An International Seminar

This impressive volume contains the proceedings of a seminar which took place in Bogotá in April 1977 under the sponsorship of the British Council. Articles deal with analysis of communicative needs, methodology, materials and syllabus preparation, teacher training, and program design. It is available through the British Council office in Bogatá.

ELI Monthly

Published by the English Language Institute, University of Petroleum and Minerals, Dhahran, Saudi Arabia, this newsletter is definitely not dedicated to English for Specific Purposes unless it may be to discredit this area of EFL. See, for example, the first paragraph of the Monthly's May, 1977 editorial, which appears on the cover sheet (Title: "Confessions of a Bellhop"):

> Lately there has been an academic movement afoot to make English teachers fall guys for an academic fad: Scientific English for Special Purposes. The following is an exposure of this sort of ESP for what it really is. For certain, those who do not like what it says will call it a hatchet job. . .

The articles in the May 1977 issue discuss UPM programs; commentary and book reviews are also included.

In general, the ELI Monthly seems less organized and less rigorous than the others discussed in this list. Nevertheless, if you would like to be put on its mailing list, write to:

Dhahran International Airport
P.O. Box No. 144
G.C.W. Donald
UPM No. 60
Dhahran, Saudi Arabia

English Language Teaching

ELT is a journal in applied linguistics published by Oxford University Press in association with the British Council. The range of it articles is comprehensive, including, of course, English for Specific Purposes. Its contributors represent many countries and many areas of ESL/EFL.

An annual subscription is $10.00. Correspondence should be addressed to Subscription Department, Oxford University Press, Press Road, Neasden, London NO.W. 10.

English for Science and Technology:

EST Clearinghouse

The EST Newsletter serves the valuable function of providing information on events, activities and publications in the area of English for Specific Purposes throughout the world. Its bibliographic resources are an important service to professionals in ESP. The EST Clearinghouse is a kind of international ESP nerve center, a must for individual and institutional libraries concerned with ESP in all its aspects (EAP, EST, etc.). For subscriptions, see Karl Drobnic, Editor, EST Clearinghouse, Office of International Education, Oregon State University, Corvallis, Oregon, 97331. USA.

ESP - MALS Journal

The MALS Journal ESP edition is a voluminous publication containing articles on both theoretical and applied aspects of English for Specific Purposes. Although published at the University of Birminhgam, U.K., it includes contributions from many countries, e.g. Chile, Mexico, Saudi Arabia, Canada, and the USA. The issue examined for this list contains materials on discourse analysis, needs analysis, methodology, program design and management, testing, and ESP in adult immigrant education. Most articles have extensive bibliographies. The journal ends with book reviews and lists of current texts. Needless to say, the MALS Journal is a must for the reference library of an ESP project. For information, write to:

C.J. Kennedy, Editor
University of Birmingham
Birmingham, England

ESPMENA

(English for Special Purposes in the Middle East and North Africa)

Published by the Khartoum University Press, ESPMENA comes out three times a year. This, the tenth issue, is the first to appear in a compact format. It features descriptions of innovative techniques and approaches used in teaching ESP, book reviews, and announcements of publications of interest to ESL/ESP professionals.

Outside the USA the publication is available without charge (thanks to Ford and the University of Khartoum) by writing to Tony Bex, or James Crofts, English Language Servicing Unit, Faculty of Arts, University of Khartoum, Sudan. In the USA, ESPMENA is available at cost through Karl Drobnic and the EST Clearinghouse, OSU, Corvallis.

EST/ESP Chile

Under the direction of the indefatigable Jack Ewer, ESP/EST in Chile has been proceeding briskly. This newsletter discusses developments in the area in Chile. It prints notices of pertinent meetings and conferences, and book reviews.

For information, write to Gerda Sindermann, Department of Humanistic Studies, University of Chile, Santiago.

English Teaching Forum

The English Teaching Forum is a journal available only to teachers residing outside the USA. It is published by ICA and distributed through U.S. Embassies. Although articles written by ESP professionals working in the United States appear in the Forum, the publication stresses EFL programs and activities outside the country. Articles dealing with English for Specific Purposes are included in the array of materials appearing in the journal. Recently, Newbury House has published a two-volume collection of articles from English Teaching Forum. In the second of these is a section on ESP. The collection is called The Art of TESOL. It provides an opportunity for instructors living and working in the United States to read selected articles from the English Teaching Forum.

Language Learning

A journal of applied linguistics, comprehensive in the range of materials it presents, Language Learning is an important publication for instructors in any area of ESL/EFL. Correspondence should be addressed to Language Learning, 2110 North University Building, University of Michigan, Ann Arbor, Michigan 48109.

Modern English Teacher:

English for Specific Purposes

This collection of articles begins with a look at the present "state of the art" in EFL and then progresses through the various fields of English for Academic Purposes, English for Science and Technology, English for Occupational and Operational Purposes to testing. It concludes with an article entitled "Commonsense about ESP". The volume contains valuable bibliographies.

For information, write to:

Modern English Subscriptions Department
8 Hainton Avenue
Grimsby, South Sumberside SN 32 9BB
England

NAFSA Newsletter and Papers in ESL

The National Association for Foreign Student Affairs puts out a monthly newsletter, in which

NAFSA CON'T

appears a column focusing on the teaching of English as a Second Language (ATESL). Occasionally, the ATESL column deals with ESP. Papers in ESL presents papers given at NAFSA's national conferences.

Individual membership in NAFSA and ATESL costs $25.00 per year. It includes a subscription to the Newsletter, the Papers, and NAFSA's Guideline Series.

NAFSA's address is 1860 19th Street, Washington, D.C. 20009.

RELC Anthology Series

Since 1968, the Regional English Language Center (RELC) in Singapore has held eleven major seminars on various aspects of language teaching in an effort to meet the needs of Southeast Asian (SEAMEO)* countries in their English-language programs. The proceedings of each of these seminars have been published in a valuable series of anthologies, each specializing in a particular aspect of EFL. The three volumes examined for this report, all published in 1976, are centered respectively on reading, theoretical and applied topics in EST, and curriculum development and syllabus design in EST. Extensive bibliographies are included.

For information, write to Tai Yu-lin, Director, SEAMEO Regional English Language Centre, 30 Orange Grove Road, Singapore 10, Republic of Singapore.

*SEAMEO: Southeast Asian Ministers of Education Organization.

RELC Journal

Also published by the SEAMEO Regional English Language Centre in Singapore is the RELC Journal, which contains articles on a wide range of topics in EFL, including, of course, English for Specific Purposes. Among the contributors are noted EFL professionals from Southeast Asia and the United Kingdom.

Subscriptions are $3.70 per year. Send money and/or manuscripts to the RELC address given above.

Recherches et Echanges

This journal, written in both French and English, is the publication of the Union of Foreign Language Teachers of the Large Schools of Advanced Science. It concerns itself with problems in education and, more particularly, with those of dealing with foreign language instruction. One of its goals is to contribute to the literature of foreign languages for specific purposes. The articles included in the June 1978 issue in general deal with programs carried out in England and France.

For information write to Celia Russo, ESLEE, 31 rue Falguiere, 75015, Paris.

TESOL Quarterly and Newsletter

(Teachers of English to Speakers of Other Languages)

The TESOL Quarterly is one of the world's foremost publications in ESL/EFL. It deals with the entire range of teaching English as a Second/Foreign Language, including ESP.

The Newsletter concerns itself with news of TESOL and affiliates, developments within the area of ESL/EFL, and activities of the sections (adult education, bilingual education, ESL, etc.).

Subscriptions are available at $20 ($30 if you are overseas) through James E. Alatis, Executive Secretary, TESOL, 455 Nevils Bldg. Georgetown University, Washington, D.C. 20057.

MEXTESOL Journal

The Journal of the Mexican Association of Teachers of English to Speakers of Other Languages is a quarterly which focuses on the special problems of teaching and learning in Mexico. It publishes articles on linguistic research, instructional methods and materials, testing and evaluation, curriculum planning, and methodological research.

Yearly subscriptions are available through membership in MEXTESOL ($20.00), which includes, not only the Journal, but the Newsletter and announcements, all sent airmail. For information or subscriptions, write to MEXTESOL, A.C. National Treasurer, Barbara Langworthy, Apdo. Postal 6-808, Mexico 6, D.F.

ORTESOL Newsletter

The ORTESOL Newsletter is the publication of one of TESOL's many affiliates. It features articles on ESL activities in Oregon, job notices, a calendar of events, and book reviews. Because of the enthusiasm of the editor and her colleagues for ESP, articles dealing with that discipline have appeared in the ORTESOL Newsletter. Write: Mary Hayes, 780 Ratcliff Dr., SE, Salem, OR.97302

The Linguistic Reporter:

A Newsletter in Applied Linguistics

This publication of the Center of Applied Linguistics performs an important service in providing information on activities and developments in applied linguistics throughout the world. A calendar of meetings and conferences (including those dealing with English for Specific Purposes), a "Linguists Wanted" column, and a CAL-ERIC biliography are useful features. The subscription rate is $6.00; the address:

Managing Editor
Linguistic Reporter
Center for Applied Linguistics
1611 N. Kent Street
Arlington, VA. 22209

(EDITOR'S NOTE: See also "From the Editor", this issue, for LSP Newsletter information.)

BOOK REVIEW

By George Bozzini, George Washington University

Nucleus English for Science and Technology: Biology, Donald Adamson and Martin Bates. London: Longman, 1977, 110 pages. Teacher's Notes, 72 pages.

In the "Introduction to the Series" in the Teacher's Notes, it is stated that "Nucleus is intended for students with some knowledge of general English" (v) The statement seems to suggest, for all its lack of explicitness, that the series would be suitable for use with lower-intermediate-level students. However, considering its heavy load of technical terminology and its emphasis on understanding scientific concepts as expressed in English, the series is in fact better suited to (very) high intermediate-level groups. On the other hand, with lower-level groups Biology may be used as a companion text to the easier General Science text in the Nucleus series.

The aim of the Biology course, as stated in the Teacher's Notes (1) is to "develop in the student a competence in using English both actively and receptively in order to extract information from written and oral texts and from visual forms of presentation..." Thus, the skill areas upon which the book focuses are speaking, reading, listening and writing, as well as acquisition of technical vocabulary, interpretation of visuals, and general understanding of scientific concept-formation.

The course consists of 12 units, each of which contains 4 sections: Presentation, Development, Reading, and Listening. All sections use visuals--diagrams, charts, tables, graphs and illustrations--as teaching devices. The Presentation presents the conceptual topic of the unit (shape, structure, function, measurement, etc.) and provides for oral practice of the relevant vocabulary items and key grammatical structures. The Development section is similarly organized and reinforces understanding of the topical concept through writing. The Reading and Listening sections show contextualization of the topical concept. They also contain additional exercises embodying linguistic and technical content appropriate to the unit. Every fourth lesson--designated A, B, and C--is a "revision" lesson which reviews the terminology and the concepts taught in the previous three units in a single context. There is a general review of all the material in the book in the last unit, called "Consolidation".

The linguistic items in this Nucleus text are selected with regard to their relevance in expressing the concepts of biology. This in effect constitutes a rich collection of grammatical items, which would be equally appropriate in various other courses. Example structures presented in Biology are:

Form	Function
Nsg + a/an, Npl + ∅	Generalization
Connectives both/and, while/whereas	Comparison/contrast
Postnominal modifiers N + V-ing, prep phr	Identification
Passive voice	Impersonalization in scientific report
Nominalization	Statement of function or concept

The vocabulary items are of several types. There are technical content items specific to biology ("peristalsis", "tibia", "carnivores", etc.). There are terms reflecting the "elevated" style of general scientific writing ("anterior/posterior" for "front/back"; "considerable/negligible" for "large/small quantity"). There are items showing fine distinctions which the biologist is wont to make, as for "consist of" vs. "be made up of" vs. "be composed of" used respectively with reference to a structure as a whole, the structure broken down, and the materials from which the structure is formed... (Teacher's Notes, p.13)

There does not seem to be any statement in the Teacher's Notes indicating that either the structures or vocabulary items are graded. They probably are not, since the course is based on a conceptual, not a structural, syllabus.

The Nucleus texts are based on conceptual syllabi. The Biology volume "covers the two main aspects of biological study of organisms: morphology and physiology..."(Teacher's Notes, page 1). In addition, there is considerable orientation to scientific method and the basic concepts which characterize it, such as measuring, quantifying, experimentation, and empirical argument.

As the materials contain tasks which require considerable explication and guidance--as well as feed-back--from the instructor, they are best suited for classroom use. Only the student who is well grounded in biology would be able to manage them in a self-study program.

The Teacher's Notes are invaluable to the EST instructor who is not also a biologist. The Notes contain very thorough discussions of the aims and linguistic and technical content of the teaching units. Furthermore, they provide the answers to the exercises.

The many illustrations in the text are focal points for the units. They are varied (see above), thus they provide valuable orientation to the many types of visuals commonly used in the sciences. Finally, they serve to maintain student interest in the onerous task of learning a plethora of scientific terms and concepts.

The book contains a glossary of technical and semi-technical terms. This is followed by a short bibliography of student-oriented works in biology. The answer keys appear only in the Teacher's Notes.

*****

EST IN ROMANIA

By Nicolae Bejan,
University of Galati

Activity on functional styles or registers have been carried out here on many occasions. Typically such materials refer to Romanian functional styles and are primarily made by researchers in the Institute of Linguistics and the Romanian Academy.

Alongside with the theoretical approach to the subject, several bilingual or polyglot dictionaries have been produced. These are only some examples:

1. DICTIONAR TEHNIC POLIGLOT (Romanian, Russian, English, German, French), Technical Printing House, Bucharest, 1964. It contains about 30,000 entries and covers several most important areas of science.
2. ENGLISH-ROMANIAN TECHNICAL DICTIONARY, Technical Printing House, Bucharest, 1967 (115,000 entries).
3. ROMANIAN-ENGLISH TECHNICAL DICTIONARY, Technical Printing House, Bucharest, 1970 (160,000 entries).
4. LEXICON MARITIM ENGLEZ-ROMAN, Technical Printing House, Bucharest, 1971.

Other valuable lexicographic works--either bilingual or polyglot--have been produced on different branches of science and technique, such as: mechanical engineering, metallurgy, electrical-engineering, electronics, thermodynamics, chemistry, agriculture, food science, etc.

Besides technical dictionaries and encyclopaedias, relevant textbooks on ESP have also been edited here. These are only two examples:

- V. Danaila, ENGLEZA PENTRU INGINERI SI TEHNICIENI (English for Engineers and Technicians), The Technical Printing House, Bucharest, 1966. This is among the first technical manuals for foreign language teaching in Europe.
- M. Blandu, LIMBA ENGLEZA - AUTOMATICA SI CALCULATOARE (English - Automatics and Computers). The Didactic and Pedagogical Printing House, Bucharest, 1977.

Recently, however, several researchers have approached English for Specific Purposes theoretically producing papers on matters such as:

- Parallel Acquisition of English and Romanian Terminology by Technical Students in Romania; Ioana-Maria Isac, The Institute for Civil Engineering, Bucharest.
- Methods and Techniques to Teach ESP to Romanian Technical Students; Mihaela Blandu, The Polytechnic Institute, Bucharest.
- English Terminology in Shipbuilding and its Influence upon the Corresponding Romanian vocabulary; Nicolae Bejan, University of Galati.

*****

BOOK REVIEW

By Lita Verts,
Oregon State University

Basic English for Students of Social Sciences and Humanities.

Basic English for Students of Natural and Applied Sciences.

By Bonnie Brown Gfroner, Miriam Garcia Charpentier, Trinidad Gonzalez Murillo, Elisa Trejos Montero, and Jeanina Umana Aguiar. 1977, Editorial Universidad de Costa Rica. 137 pp. and 139 pp. respectively.

Identical prefaces in these two books state that they are for the "non-English major who must ...be able to read English publications in his own particular field." It would be more accurate to say "Spanish major...".

These books were obviously meant to teach scientific English in English, but the incursion of Spanish is unsettling and erratic. The first exercise of each lesson asks the student to find the cognates in the reading passage and circle them. We assume that cognates between English and Spanish are meant as no further explanation is given. There are a number of exercises where the student is asked to translate from English. Again we assume that the translation should be done into Spanish. There are also some exercises where the English words are to be matched with Spanish words.

Explanations for the exercises and for grammar points are inadequate. The books were meant to rely on in-class teacher extensions of the explanations, but those in the book are confusing. For example, the word building exercises give the suffix and the parts of speech to which it should be attached (i.e. "The suffix -ous forms adjectives from nouns and verbs."), but it does not include the spelling rules. Therefore, in the exercise following *-ous* both *rebellious* and *fallacious* would be misspelled without further explanation from the teacher. These inadequate instructions should have been left out entirely or expanded to an adequate level.

My major objection to these books, however, is that they are full of grammatical errors and obscure correspondances that a native English speaker would not make nor would he understand them if he read them. *Deep* is consistently equated with *profound*, but its physical meaning is never used. *Trace* is used consistently as a noun, but it is never identified as a verb which is its more common usage. On page 31 of the Social Sciences book, there is this sentence: "Without continual study to keep up *your* competence, even an experienced teacher can *soon* become dry and rusty." (italics mine). This ungrammatical sentence is buried in a paragraph written in the impersonal *you*, but that does not redeem its error.

Finally the reading passages are not written in good scientific style.

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EST CLEARINGHOUSE PUBLICATIONS AVAILABLE

In addition to the regular services of the Clearinghouse, the following publications are available through the Clearinghouse.

38 ESP TEXTBOOK REVIEWS

38 ESP textbooks are reviewed by the participants of the 1978 EST Teacher Training Institute. Over 180 pages. Each review in a standardized format.

$6.00 US, Canada, Mexico.
$9.00 Overseas airmail.

Please send ___________ copy(ies) to:

Name________________________________

Address______________________________

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VOLUME#I, EST NEWSLETTER

EST Newsletter Year 1, April 1977 to March 1978. Issues 1-12 of the EST Newsletter, compiled and stapled two on the left side. A handy reference tool.

$4.00 US, Canada, Mexico.
$5.00 Overseas airmail.

Please send ___________ copy(ies) to:

Name________________________________

Address______________________________

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COPENHAGEN JOURNAL, LSP NEWSLETTER

We have received a copy of #4 of the journal of the Copenhagen School of Economics and Business Administration Language Department. The journal contains articles in a number of languages, including French, German and English, and #4 includes a lengthy article by Max Gorosch titled, "Modern Language Teaching to Adults for Professional Use". We have also received back issues of the UNESCO ALSED-LSP Newsletter, which is housed at the Copenhagen School of Economics. These contain a great deal of information about Languages for Special Purposes in Europe, and EST Newsletter readers are urged to contact the LSP network to get on the mailing list. Write: UNESCO ALSED LSP NETWORK & NEWSLETTER; Fagsprogligt Center; COPENHAGEN SCHOOL OF ECONOMICS; Fabrikvej 7; DK-2000 Copenhagen; DENMARK.

REPORT FROM MEXICO

Charles Alderson, UNAM

The Research and Development Unit of the Foreign Language Teaching Centre of the National Autonomous University of Mexico serves some 270,000 students. We have produced ESP reading comprehension courses for Veterinary Medicine, Architecture, Law and Economics, and are currently working on material for Business Administration and Political and Social Sciences. In fact, I gave a paper at the Mexico City TESOL convention about these materials. In addition to writing teaching materials, we are also engaged in the development of a framework for the production of materials (about which members of my staff will be talking at the AILA conference in Montreal) and in the production of ESP reading comprehension tests--an area which we feel has been largely neglected to date. We also attempt to carry out basic research into aspects of our work--mainly into reading comprehension--and have produced ten reports on our activities, which are freely available if you should be interested in seeing a copy. Two of these reports have been published in the MEXTESOL Journal (volume II, nos. 3 and 4, 1978).

EXPANDED NEWSLETTER

The EST Newsletter seems to have expanded to eight pages. This is mainly because the flow of information has increased--and because there are enough subscriptions to cover two extra pages. This allows for six full pages of articles, reports, reviews, addresses, etc. and leaves room also for Clearinghouse business, announcements, bibliographies, subscription forms and the like. The Newsletter now goes to programs in over 40 countries, and I wish to remind readers everywhere that the Newsletter encourages you to write and let the world know the state of EST in your area. Short descriptions of projects you are working on and programs you are involved in are extremely welcome, and with the extra space of the eight page Newsletter, I can promise timely publication in most cases. So those who can take the time to forward a few paragraphs about their work will find their efforts both acknowledged and appreciated.

For work of a longer nature, 6-8 typewritten, double-spaced pages is about the limit for complete publication. When work is of a longer nature, I will either excerpt from it and place the complete work in the Clearinghouse, or suggest a publication that would be likely to carry the complete article.

SUBSCRIPTION FORM

Year 2 subscriptions cover the period of April, 1978 to March, 1979. Mid-year subscriptions are back filled to Issue 13 (April, 1978). Prices are per below. Make checks payable to OREGON STATE UNIVERSITY. Mail to: EST Clearinghouse; ELI AdS A100; OSU; Corvallis, OR. 97331 USA.

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EST CLEARINGHOUSE
ELI AdS A100
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Corvallis, OR. 97331

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ENGLISH FOR SCIENCE AND TECHNOLOGY

KARL DROBNIC, EDITOR
ELI ADS A100

(503) 754-3006

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

A SERVICE OF THE ELI, OREGON STATE UNIVERSITY; INITIALLY SPONSORED BY AID/NAFSA LIAISON COMMITTEE

FROM THE EDITOR:

Plans continue to advance for the 1979 EST Teacher Training Institute, which will feature presentations by John Lackstrom, Louis Trimble, Mary Todd Trimble, and others. We are using the time between now and the TESOL Convention in Boston this February to set the curriculum and firm up administrative details. I would therefore appreciate hearing comments from the readership on their interests and concerns.

Complete details will be ready in time for TESOL, Boston, where we will have representatives and information outlets. Dates for the four-week TTI are 30 July to 24 August. It will take place in Corvallis, Oregon.

Plans are also currently being made for the 2nd Annual EST Clearinghouse Report, to be given at TESOL in Boston. We anticipate a session similar to our Report at TESOL Mexico last April where emphasis was on facilitating person-to-person communication among those in attendance. Those who would like some time or space to make announcements, display literature or otherwise contribute to Report II should contact me with questions or details as soon as possible. I would be especially interested in hearing from any institution that could contribute to a light refreshments fund for the occasion.

EST JOBS AVAILABLE

Education Development Center is currently seeking candidates for EFL/EST teaching positions in Boumerdes, Algeria. Openings are for February of 1979; duration is for six months with possible extensions. EDC is also seeking a program director; beginning date September, 1979.

Your Editor takes the liberty to point out that successful candidates will be joing a staff that has had considerable training in EST and that an additional benefit of teaching in this program has been the opportunity to participate in various EST workships and training sessions.

Interested parties should submit 3 copies of their resume detailing experience, training, salary history, and references to International Programs/EFL; EDC; 55 Chapel Street, Newton, MA. 02160.

EST DISSERTATION

We have been advised of the following dissertation completed at the University of Texas at Austin in August, 1977 by Francoise Salager: "Optimum Foundations of English Technical Literature and their Applications to the Comprehension Training of Non-English Speaking Scientists: A Statistical Approach."

ABSTRACTS FROM GERMANY

The Clearinghouse has received abstracts of a group of articles that will be published by Wilhelm Fink Verlag, Munich. The abstracts are in German with English translations and concern various aspects of scientific languages. Copies of the abstracts are available through the Clearinghouse (See bibliography). The editor of the collection is Theo Bungarten, who may be contacted at: Universitat Hamburg, Germanisches Seminar, D-2 Hamburg 13, Von Meile Park 6, West Germany.

The publication is WISSENSCHAFTSSPRACHE. Beitrage zur Methodologie, theoretischen Fundierung und Deskription. Wilhelm Fink Verlag, Munchen 1978 (forthcoming).

* * *

COURSE DESCRIPTION FROM CHICAGO

M. J-V Blanton's course description for English 344, *Literature of Modern Science*, at the *Illinois Institute of Technology*, reads:

The course will provide undergraduate science and engineering majors the opportunity to elucidate the writing and hence the ideas of scientists and, therefore, motivate the student to appreciate, from a linguistic point of view, the development of modern scientific thought. In order to arrive at an understanding of the concepts of creativity and originality in the sciences, the student will examine the utility of language for the scientist by exploring such issues as rhetorical categories and their relation to the analysis of prose style, the aspects of scientific prose style in science expression, and the implications of a study of language for science.

Lecture topics will include:

The Character of Science Understanding.
The Character of Understanding Science.
Fresh Language in the Sciences.
Cohesion, Coherence, and Vigilance in Scientific Fresh Language.
Developmental Semantax and Extensional Discourse.
Observation, Description, Definition, Analysis, and Explanation in the Sciences.
Some Possible Rhetorical Choice Structures in Science Expression.

Texts for analysis will be:

L. Thomas, *The Lives of a Cell* (1974)
R. Hooke, *Micrographia* (1665)
C. Darwin, *On the Origin of Species* (1859)
R. Boyle, *The Sceptical Chymist* (1680)
W. Harvey, *Motion of the Heart and Blood* (1628)
W. Gilbert, *De Magnete* (1893)
I. Newton, *Optics* (1730)

Texts to aid discussions will be, in order of reading:

C.S. Peirce, "Illustrations of the Logic of Science" (1877)
W.K. Wimsatt, *The Verbal Icon* (1954)
S. Buchanan, *Poetry and Mathematics* (1929)
B. Barber, "Resistance by Scientists to Scientific Discovery" (1961)
J. Tyndall, "Scientific Use of the Imagination" (1886)
W.C. Salmon, "The Foundations of Scientific Inference" (1966)
M. Blanton, "An Essay on Language Vigilance" (1978)
M. Blanton, "An Essay on Fresh Language" (1978)
S. Buchanan, *Truth in the Sciences* (1972)
J. Losee, *A Historical Introduction to the Philosophy of Science* (1956)
E.A. Burtt, *The Metaphysical Foundations of the Philosophy of Science* (1932)

The Final Course Paper (5 to 8 typed pages) can be either:

1. An interlanguage description of scientific fresh language in English and another language.
2. An analysis of scientific fresh language from some source other than what was handled in class.
3. A description and analysis of a professor's rough drafts and his/her finished manuscript.
4. An original work of research and experiment on some topic related to the student's own area of science or technology.

*Anyone interested in what promises to be a rather longish bibliography growing out of the course can write, in January, to Dr. M. J-V Blanton, Humanities, Illinois Institute of Technology, Chicago, Illinois 60616.

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NEW JOURNAL ANNOUNCED

Volume I, 1978 of PRACTICAL PAPERS IN ENGLISH LANGUAGE EDUCATION, a new journal from the Institute for English Language Education, University of Lancaster, England is available by writing: The Secretary, IELE, Bowland College, University of Lancaster, Lancaster LA1 4YT England. The editors are Michael P. Breen, Christopher N. Candlin, Pauline Rea, and Alan Waters. They state in their introduction that publication in the journal is open to "individuals and centres outside Lancaster who have similar interests to our own." Volume I includes a useful article by Tom Hutchinson which constrasts communication demands on non-native-English-speaking technicians with those on graduate level ESL students following "study skill" type courses.

The readership is urged to contact the address above for their copy of this promising new journal. Although the three papers in this first issue are long in length, they are so because they are practical, and contain a wealth of material that both teachers and program planners will find immediately useful.

****

NEW ESP BOOK

ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY, a collection of articles reflecting the growth and current state of EST as a discipline, edited by Mary Todd Trimble, Louis Trimble, and Karl Drobnic is now in press and should be released in the very near future. As well as articles by the above named, the book includes work by Larry Selinker, John Lackstrom, Robert Bley-Vroman and an number of others, and includes contributions from Europe, Asia, and Canada, as well as the United States.

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EDITOR'S NOTE:

Space constraints have required that I shorten the following article. I have therefore chosen to print the first 50% of the paper. The complete paper is available through the Clearinghouse (see bibliography). The sections of the paper not carried here cover a videotape produced for Industrial Language Training, using video to teach participation in seminars, self access materials, research, constraints, summation, and an extensive list of references.

VIDEO IN ESP

By Chris Kennedy, University of Birmingham

1. INTRODUCTION

The purpose of this paper is to review the developments taking place in the use of video in English for Specific Purposes (ESP) and suggest ways in which VTR/VCR equipment might enhance ESP teaching programmes.[1] Although I shall make reference to television and film, I shall assume that wherever possible TV programmes or films would be copied and used on video equipment, since a video unit, as well as being less cumbersome, provides the teacher with a flexibility that TV or film lack. A video tape can be stopped, wound forward, rewound, as the teacher and his students require, which gives the teacher control over the output of the programme. Lack of output control restricts a teacher's pedagogic moves and he cannot adjust and adapt his teaching to match learner-reaction to the material presented.

2. USES OF VIDEO

There is a growing use of video in English Language Teaching (ELT) both at home and abroad[2] in three main areas:

(a) in research
(b) in teacher-training programmes
(c) as part of a package of teaching materials.

(a) Researchers investigating verbal and non-verbal aspects of communication[3] need video recordings to gather and analyse data. The results of these investigations, particularly those concerned with small group interaction in seminars and with the discourse of lectures, will hopefully be of benefit to ESP materials writers.[4]

(b) In teacher-training programmes, video recordings in micro-teaching practice are well-established.[5] They have, however, been little used in the training of teachers of ESP. Few such ESP training programmes exist[6] and in any case, the specific skills required by ESP teachers as distinct from 'general' ELT teachers have not yet been analysed: "one of the most important jobs that never gets done is the full specification of the professional skills required of an ESP teacher." (p.111)[7] It is with the third use (c), using video as part of an ESP teaching programme which I shall be concerned with here.

3. TYPE OF OPERATION

There are always dangers that, like the language laboratory before it, video may be greeted as the panacea to ELT ills. This would be unfortunate. It is essential that video should be regarded as an aid that in certain circumstances with certain students can make the learning/teaching process more effective. We need to distinguish here between whole-job, major-job and minor-job operations.[8] A whole-job operation is one in which all the teaching is done through video. I do not intend to discuss the potential of this special type of operation for ESP here, although one could envisage programmes, for example, for businessmen needing the language skills required for business and social transactions conducted in English.[9] In the major-job operation, video is used as a support for inadequately-trained teachers or teachers with a weak command of the language, presenting material which they would be unable to teach themselves. This approach could be useful in ESP programmes, with video programmes not only supplementing a teacher's lack of linguistic skills but also his lack of knowledge of the content area, since both native and non-native teachers often feel insecure when teaching from scientific and technical texts. However, the cost-effectiveness of this type of operation must be realistically assessed. The money spent in video production of this sort might be better spent providing the teacher with more in-service training, more textbooks and relatively cheap aids such as tape-recorders. We have to take a hard-headed look at why we use video at all. It must do something the teacher cannot do or does poorly. It must be regarded as an aid to a teaching programme, not as an independent programme in itself, and its use should be carefully integrated with other materials used on a course.[10] These criteria point to the minor-job operation in which video is used with experienced, trained teachers as a teaching device in the context of a full programme of course work.

4. ESP AND VIDEO

Looking at ELT in terms of ESP has certain implications for methodology and materials and so for the use of video in an ESP programme. Underlying much ESP work is a concern with the development in the learner of varying stages of 'communicative competence'[11] and of the teaching of language as a system of communication.[12] This implies that learning will be focussed to an increasing extent on a view of language as use rather than usage, or communicative abilities as well as linguistic skills.[13] We have to go further, however, and by conducting a needs analysis, discover which communicative abilities and what aspects of them are required by the learner in the 'real-life' situations for which he is being trained by the language teacher.[14] So that materials should reflect the learner's needs as closely as possible, the learner's terminal goals are taken as course aims and serve as input to the design of the materials, which are therefore often based on 'authentic' data. The success of the ESP programme will then be measured by the ability of the learner to perform in the 'real-life' situation, which might be reading an engineering journal article, listening to a lecture on Sociology or participating in an academic seminar. However relevant the materials they will not succeed unless in addition they both motivate the learner because of their liveliness and interest and also demand his actual participation and involvement in some way. Taking these socio-psycholinguistic considerations into account, we can begin to see the advantages of exploiting video in ESP teaching. Video is highly motivating for the learner. It can expose him to 'live' instances of communication rather than the usual simulations which teachers or text-book writers have to resort to. It can show him the situations he will have to operate in, can present examples of successful and unsuccessful interaction, and more important can show why misunderstandings might occur and how to avoid breakdowns in communication. The learner's terminal behaviour can be brought into the classroom rather than exist as an abstract ideal outside it. At the same time, because of the control the teacher has over output, both teacher and learner have time and opportunities to select and discuss those aspects of the materials which need clarification or explanation.

5. VIDEO AND SKILLS DEVELOPMENT

I should now like to look at various skills to see to what extent video can contribute to developing them. Although for organisational reasons I shall be writing about individual skills, I hope it will become clear that I advocate an integrated approach to skills teaching.

(a) Reading and Writing

It is difficult to see how video could be used to improve a learner's ability to read and write[15] which a textbook could not do as well or better. The training of these two abilities involves exposure to large units of discourse in texts and practise in decoding and encoding their rhetorical structure. Video cannot provide exposure of this sort to a large body of text. However, the more 'mechanical' reading skills such as those mentioned by Ewer[16] may be trained using video. Many non-native readers have difficulty in hand manipulation and left-to-right eye movement in the early stages of reading and writing and Sherrington[17] has suggested techniques for training these skills. Roller captions can be used to increase reading speed and the ability to skim and scan for information. Sub-titles used with a visual presentation are compulsive reading and this is a further technique which should be exploited for training reading skills. Elementary composing and comprehending exercisees[18], training the learner to recognise and copy letters, words and structures could also be visually presented.

Note-taking is a particular study skill which many overseas students have difficulty with in the course of their studies at English-medium colleges and universities. Here video can be used to present a stimulus, in the form of a description of a process, an account of an experiment, or a lecture, to which the student responds by taking notes. Notice that the role of video here is not to teach note-taking skills as such, but to present a realistic verbal and non-verbal context in which the activity of note-taking may take place. Bearing in mind what was said above about an integrative methodology for teaching skills, a learning/teaching cycle might take the following form:

i) listening to/watching a video-taped lecture/talk
ii) at the same time taking notes or
iii) completing various note-taking exercises
iv) follow-up discussion of the notes in pairs/groups
v) possible writing-up of notes into a full report.

This integrated approach is followed by Geddes[19] in her teaching materials which illustrate the integration of video in a learning/teaching sequence exploiting various skills at different times within the teaching unit. A topic is selected for the unit, e.g. Rural Urban Migration. The students approach the topic through introductory readings, then listen to/watch a video-taped lecturette and take notes. Further reading follows and the information the students have gained as a result of their reading/listening/note-taking is then exploited in a seminar-type discussion. Starkey[20] suggests a similar integrated methodology, using technical films for listening, note-taking, writing and discussion. Note that these programmes involve the student in active participation--the value of video is lessened if active student response is not built-in to the materials.

(b) Listening

In talking of note-taking skills I have already introduced the topic of listening. One of the major advantages of video in ESP is that it can present to a learner A-V recordings of the academic situation he will be faced with in his role as a student following a particular subject speciality, engineering, physics etc.[21] Sturtridge (et al.)[22] use video-taped lecturettes for extensive listening and intensive analysis during which they focus attention on "...the students' notes as a reflection of its content and it organisation..." (pp.110). They report that the addition of the visual and non-verbal features of discourse made available through video makes the lecturettes easier to understand than those recorded on audio-tape alone. This we would expect since by denying a learner access to the non-verbal features of discourse we are removing a valuable aid to understanding which is present in normal face-to-face interaction[23].

Video can also present information visually which would normally only be accessible in written form or through 'stills', for example, an industrial process or heavy industrial or scientific equipment. In cases such as this both language and science content can be presented and explicated together. Adams-Smith[24] uses film for team-teaching sessions between language teachers and subject specialists, a welcome move towards integration of language and content. During the first showing of the film, language points are raised and clarified by the language teacher; during a second showing, a subject specialist joins the group and discusses its content with the students, answering their technical rather than linguistic questions.

(c) Speaking

Since a video recording is able to present authentic situations and show individuals interacting with each other, it might be thought that its main use could be in developing oral skills. However, its use in practising oral skills is at the moment limited, since, although video can present two-way communication, a viewer cannot practise interaction with screen characters. Video participation, as we have seen in the sections on note-taking and listening, tends to take the form of non-reciprocal activity, whereas the essence of the spoken mode is that it is a reciprocal social activity, which can be shown to viewers but without their 'on-line' participation.[25]

A recent attempt in the field of ESP has been made to overcome this limitation in a series of video films made for immigrants in industry or those immigrants about to leave school for jobs in industry.[26] The six films cover 'The Job Interview'; 'The First Day at Work'; 'Clocking-On'; 'Safety and Job Instruction'; 'The Meal Break'; 'Pay Day'; and take the form of dialogues between the new immigrant factory worker and the people he meets--fellow-workers, foremen, shop steward, etc. The dialogue is presented twice with no interruptions. The practise phase follows: the dialogue is repeated except this time gaps are left for the viewer to repeat the 'lines' spoken by the new worker. The new entrant appears (head only) in a small frame at the top of the screen and mouths the responses which the viewers are to repeat.

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ESP INSTITUTE, LANCASTER

The Institute for English Language Education, University of Lancaster, England, will host an ESP Institute August 6-31, 1979. Course tutors will be Christopher Candlin, Michael Breen, Alan Waters, Dermot Murphy, and Greta Sealey. The brochure received states that the course will cover the areas quoted below.

The principles of design and methodology underlying existing and future ESP materials will be examined in the light of current research in relevant areas of applied linguistics.

The identification of learner needs and practical techniques in the collection and analysis of language data will form the basis for a series of workshops, supported by materials writing sessions related to the particular areas of interest of the course participants.

A major theme of the course will be the focus on unifying ideas and techniques common to all forms of ESP, and a careful evaluation of contemporary tendencies towards specialisation in course and

tendencies towards specialisation in course and

materials design.

The fee for the course is £450, which includes tuition, full board and accommodation. Further information may be obtained by writing:

Institute for English Language Education
Bowland College
University of Lancaster
Bailrigg, Lancaster LA1 4YT
England

Telephone: (0524) 65201 Ext. 389
Telex: 6511 (Univlib Lancstr)

*****

ESP MATH TEXTBOOK

The latest IML Catalog offers FUNDAMENTAL MATH WORKBOOKS. IML makes the following claims for their text:

The FUNDAMENTAL MATH WORKBOOKS, Parts I and II, teach basic mathematical skills in graduated steps, utilizing a limited vocabulary. Their secondary purpose is to reinforce English vocabulary and structure already familiar to the school-age or adult student.

Parts I and II of the FUNDAMENTAL MATH WORKBOOKS each have ten lessons, each lesson having three sections.

- Section One contains two or more explanations of the mathematical concepts being developed. Each explanation is followed by three or four word problems, which illustrate the concepts.
- Section Two consists of Exercises which give students practice in using their newly acquired mathematical skills.
- Section Three is a Glossary of the mathematical terms covered in the lesson.

Students who complete fundamental math will be able to work with fractions, decimals, equations, graphs, ratios, square and cube roots, formulas, and some plane and solid geometry. They will be versed in both the metric and English systems of measurement.

An Answer Key forms part of the FUNDAMENTAL MATH materials.

IML may be contacted at Pittman Drive, Silver Spring, Maryland, 20910, U.S.A.

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BOOK REVIEW

By Russell Alexander, IAP, Algeria

ENGLISH FOR BASIC MATHS. First Edition. David Blackie. Sunbury-on-Thames: Nelson, 1978. 62pp.

This small volume brings together a great deal of materials which would be difficult for the EST teacher with no technical background to compile. Its concern is the terminology used to express and understand the basic math function.

Target Student Group

No target student group is claimed for this text. It could easily be used by intermediate students who are begining any type of specialist training which requires this terminology. If used with begining students it would probably be most effective to use this bbok as one segment of a curriculum. In this way students would get the structures necessary to make use of the terminology in written and oral form. As indicated by the title, the text concentrates only on very basic math terminology. It would not meet the needs of a student needing the specialized math of upper level engineering or statistics, for example.

Linguistic Aims

The book concentrates on speaking and reading skills. Most of the exercises ask a student to read a problem and solve it on paper or produce an oral description or solution. Sometimes rather open-ended discussions are called for. The use of different types of graphs and of logarithm tables are also covered.

Course Structure

The areas covered are:

Unit 1 - Numbers and basic operations
Unit 2 - Fractions
Unit 3 - Ratio, proportion and percentage
Unit 4 - Power and roots
Unit 5 - Factors
Unit 6 - Equations and formulae
Unit 7 - Lines and angles
Unit 8 - The triangle
Unit 9 - The circle
Unit 10 - More 2-dimensional figures
Unit 11 - 3-dimensional figures
Unit 12 - Dimensions
Unit 13 - Graphs
Unit 14 - Logarithms and trigonometry

Following Unit 14 is a section of revisions covering the various terms taught earlier in the book. Here, more sophisticated use is made of the terms taught. The book also includes an appendix of mathematical symbols and their verbal equivalents, an appendix of common abbreviations, and an appendix of the Greek alphabet. A table of contents lists the areas covered and an index is included.

The structure of each unit varies with the content. Most begin with a presentation, usually in the form of examples in sentence form. Then a practice section follows in which the student either solves word problems or reads statements expressed in symbolic notation. The process is then repeated with new material. The unit is concluded with a vocabulary exercise in the form of fill-in-the-blanks. The vocabulary exercise covers all of those terms introduced in that unit. The material is then extended in the revision sections at the end of the book.

A shortcoming is the lack of any kind of listening exercises. The type of terminology presented in the book is often encountered in lectures and listening exercises would be valuable. No tapes accompany the text, but the teacher would probably want to develop exercises to work in this skill area.

Selection & Grading of Linguistic Structures & Vocabulary

The author's only concern is the terminology of math. No other terminology is treated in the exercises. There is vocabulary which would be considered as new for begining students. The terminology is no more difficult at the end of the book, but the operations which the student must perform are.

No structures are explicitly introduced, but an understanding of many is necessary. Although many of the exercises are fill-in-the-blank, many require a much greater command of English. For example, one question reads, "Can you explain how to use logarithms?" This type of question is fairly typical of the revisions.

Underlying Methodological Principles

Although the operations used in basic math determine the content, little actual teaching is attempted by the book, other than memorization of terms.

Methods of Presentation

No methods of presentation are suggested by the author. There is no introduction or teacher's notes of any kind. The language level of the students will be the determining factor as far as methods are concerned. Many of the exercises require only simple recall of a term, but some would lend themselves to a discussion type presentation. A student with a strong English background could make use of the book in a self study situation. Although no answer key is given, most of the answers can be found simply by checking back in the book.

Many diagrams and illustrations illustrate the terms being presented. This would make the job of the EST teacher much easier.

Other

The value of this book lies in its logical presentation of a great deal of supplementary material. It could not, and is not intended to be a course in itself, but it does provide material that is often left out of EST texts.

Even if the book is not used as a classroom text, it is valuable as a resource book. If it is used as a text, it would be necessary to supplement it heavily or to use it as a "math module" within a larger curriculum.

BIBLIOGRAPHY

The following articles are newly available from the Clearinghouse. The price covers the cost of copying and postage; no profit accrues to the Clearinghouse from their dissemination.

Bungarten, Theo (editor). WISSENSCAFTSSPRACHE. Beitrage zur Methodologie, theoretischen Fundierung und Deskription. Wilhelm Fink Verlag, Munchen (forthcoming). "Zusammenfassungen und Summaries der Beitrage." (Editor's Note: These are abstracts of a forthcoming book. In German and English.) 97¢

Drobnic, Karl. "Teaching EST Without Becoming a Scientist". ESP MALS Journal, Birmingham. Summer, 1978. 62¢

Kennedy, Chris. "Video in ESP". EST Newsletter #19; Corvallis. October 1978. 32¢

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EST CLEARINGHOUSE PUBLICATIONS AVAILABLE

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EST AT 8TH ANNUAL APEI SEMINAR

From J.E. Strain, Moza English Language Consultant
Moza English Language Consultants, Tehran

The 8th Annual APEI (Association of Professors of English in Iran) Seminar was held March 16-19, 1978 at Ferdowsi University in Mashad, Iran. Dr. Parviz Amouzegar, Chancellor of Ferdowsi University, and one of the founders of APEI, opened the Seminar with a brief overview of the main themes, issues, and American and British Approaches that currently characterize the teaching of English in Iran.

One of the main topics discussed in the applied linguistic group papers, colloquia and workshops was ESP, and emerging from the discussions was a polarization of views regarding the place and role of ESP in Iranian institutions. Whereas general acceptance of ESP was reflected at the Regional ESP Conference co-sponsored chiefly by APEI, the British Council, and Isfahan University at Isfahan University, November 1977, a number of reservations have now surfaced. In Iran, opponents to ESP tend to represent English medium institutions such as Pahlavi University, Jondi Shapour University and the Abadan Institute of Technology, while proponents of ESP tend to represent institutions which emphasize English mainly as a library skill and research tool; for example, Tabriz University and Arya Mehr University of Technology. Two significant controversies voiced at this seminar were whether "General English" is needed or even exists and the charge that ESP may contribute to an esoteric overspecialization among English teachers (e.g., teaching English for Chemistry students, English for Biology students, English for History students, etc.).

Information regarding the Proceedings of the 8th Annual APEI Seminar or previous seminars is available from APEI, P.O. Box 13-1205, Tehran, Iran.

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FROM THE EDITOR:

A number of French for Special Purposes publications are available from the Conseil International de La Langue Francaise. The publications, some with an English index, are:

1. VOCABULAIRE DE RADIOGRAPHIE
2. REPERTOIRE DES DICTIONNAIRES SCIENTIFIQUES ET TECHNIQUES 1950-75
3. VOCABULAIRE DE L'OCEANOLOGIE
4. DICTIONAIRE D'AGRICULTURE ET DES SCIENCES ANNEXES

For further information contact C.I.L.F.; 105 ter; rue de Lille; 75007 Paris, France.

*****

A symposium on English for Specific Purposes, sponsored by Pacific American Institute, was held in Los Angeles on November 8. Symposium speakers were Louis Trimble, Henry Widdowson, and Mary Todd Trimble. Bill Gay presided. The symposium compared the approach to English for general language proficiency with the approach to ESP on the basis of rhetorical function, grammatical areas, and the four skills. Also addressed was the subject of individualization and the approaches to providing the student with work related to his specific needs.

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Oxford University Press has available BASIC ENGLISH FOR SCIENCE, a textbook aimed at classroom use which presupposes a minimal knowledge of English. There is both a student's book and a teacher's edition.

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The latest issue of TESOL Quarterly includes two papers on EST. One is "Rhetorical Function-Shifts in EST Discourse" by Larry Selinker, Mary Todd Trimble, and Louis Trimble, a follow-up on their previous TQ article, "Presuppositional Information in EST Discourse". The same issue also contains an article by Bob Weissberg and Suzanne Buker describing their technique for teaching writing to EST students at New Mexico State University. The technique described had broad applicability and readers should find it useful in many ESP teaching situations.

*****

Several of October's new subscribers to the Newsletter may not have received Issue 19 due to a slight delay in entering their names in the computer. If you recently subscribed and did not receive #19, please notify me.-----Ed.

*****

Those who have pre-ordered ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY, edited by Mary Todd Trimble, Louis Trimble, and Karl Drobnic, can expect to receive their copies in the mail this month. Complete information on ordering will be carried in the next issue of the Newsletter.

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EAP, THAILAND

The Conference, sponsored jointly by Chulalongkorn University and the British Council, Thailand, took place at the University, 24-26 April this year. It was attended by English instructors from over twenty institutions of higher education in Thailand, as well as representatives from several government departments and other agencies with an interest in English language teaching at this level. The sessions were also well attended by English teachers in Bangkok, and there was one participant from India.

It was very much a workshop course in which many different speakers reported on the progress of EAP schemes at their parent institutions and took part in animated discussions on a variety of possibly useful approaches. It was obvious from the proceedings of the Conference that Thailand is a very lively area for EAP work.

It is hoped that, as a result of the Conference, a central clearing-house for the exchange of information on EAP projects in Thailand will be set up at The Chulalongkorn University Language Institute.

Mrs. Rosemary Khoo and Mr. Bernard Coffey represented a joint paper on the current RELC EAP project, which is referred to in this issue.

(Excerpted from RELC Newsletter, June 1978.)

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*PRACTICAL CURRICULUM DEVELOPMENT AND EVALUATION IN ESP/EST

Ronald Mackay
TESL Centre
Concordia University

1. Purpose of the notes

The purpose of this brief paper is to offer colleagues who are working "at the coal-face" in situations where they are required, often with inadequate time, money and resources to plan, mount, maintain and improve ESP/EST programs, a procedural model which can be of practical help to them in planning and executing their task effectively.

2. Why a Model?

A model has, as its purpose, the representation of the essential characteristics of the real life situation in such a way that we get a clearer understanding of the situation and, as a result, some indication as to how to manage. In this case, the model represents the phases involved in developing an EST/ESP program from scratch.

3. The Rationale upon which the Model is based

Any project arises from an identified need, an expression of interest and a commitment of support from an authorizing or funding body. This is the "rationale" for the program. It may be phrased in very general terms such as "We must do something to reduce the number of accidents occurrring on the oil rig as a result of communication breakdowns" or "The foreign students in Engineering are not writing examination answers which reflect the knowledge they possess as demonstrated in their workshop activities" or "These doctors have to be able to work effectively with English-speaking colleagues and patients." If the problem is severe enough and the interest in solving it is proportionally high, then in general, the authorities be they a government agency, a research funding body, a faculty dean or a department head, are usually willing to endorse and encourage an effort to provide an adequate solution to that problem. It may be in the form of merely releasing someone from part of his regular duties to devote some time to the new task, or of providing him with the facilities and resources necessary to do a pilot study or to determine how best the problem should be tackled.

However the commitment is realized, the subsequent attempts to provide a solution must necessarily work within the constraints of time personnel and money available. This means compromise, and compromise means a job less thoroughly or less well done than those handling it would have liked. However, given that compromise is virtually always necessary, it is important to know at what points compromise will result in the least damaging effects on the final outcome. An operational model helps the teacher or the applied linguist to examine the realities of his situation and to determine the phases to which greatest attention will be given.

For example, there would be little point in spending 80% of the time and money available for the project on a detailed needs analysis if the remaining 20% of the resources could not produce an adequate program. On the other hand it would be a mistake to spend the greater part of the time, money and effort available on developing and evaluating a set of instructional materials if they were based on a inadequate needs survey and goals specification and left little or no resources for the effective implementation of the program.

4. The Phases of ESP/EST Curriculum Development and Evaluation.

4.1 The Basic Information Gathering Phase:

4.1.1 Focus on Purpose

Most ESP/EST projects have to begin with an information-gathering stage during which the purpose of the program, its goals, those who will benefit from it (the students, the institution) and those who will be required to teach it are all clearly specified and described.

The tools used here are usually instruments to survey the 'status quo' viz. questionnaires, structured interviews, controlled observation and checklists. The outcome is a clear description of what is and what is needed in terms of current practice and expertise, desired goals in terms of the skills required by students, and the necessary instrumentation in terms of the qualities of the personnel required to teach the program.

4.2 The Production Phase:

4.2.1 Focus on Language and Language Use

The production phase may have to include two components. The first, a selection of the appropriate language to be included in the program in terms of mode (written or oral), content (specified subject matter), reader-writer relationship (i.e. who the material is aimed at) and any other variable which appears appropriate, such as the inclusion or exclusion of accompanying illustrations, figures, tables, graphs, etc.

4.2.2 Focus on Teaching, Learning and Testing

Teaching points representing the characteristics of the target discourse are selected, practice material chosen and, if possible, exercise tasks, which take into consideration the difficulties that students might encounter in mastering the material, are developed and sequenced. At the same time tests can be developed. These can be criterion-referenced tests which are made up of the kinds of tasks the student is being taught to master and reflect the target discourse. One way of doing this is to turn exercise material in the program into testing material. These "syllabus embedded" tests help to determine what is being learned and how well.

4.2.3 Focus on Classroom Interaction

Methodological procedures for the appropriate exploitation of the teaching materials are developed and tried out. As well as being judged in terms of how successfully a teacher can use them, how "enjoyable" they are for teacher and student, it is also important to determine the extent to which they generate the kind of activity or language which has been indentified as desirable.

4.2.4 Focus on Teacher Training

It is essential that teachers selected to use novel instructional material be adequately briefed as to the principles upon which it was written, the desired outcomes in terms of what the student should learn to do, and the ways in which the material might be best exploited in class. Many otherwise adequately planned ESP/EST programs founder because of inadequate teacher training.

4.3 Evaluation and Revision Phase:

4.3.1 Focus on Formative Curriculum Evaluation

The purpose of one kind of evaluation is to provide the program planner with information which he can use to make immediate improvements in the materials being produced. This is called formative evaluation and can be carried out by directly observing the classes in which the new materials are being used, eliciting comments and opinions from the students, requesting comments and suggestions from the teacher, and building in tests to determine how much of what should be learned is being learned.

4.3.2 Summative Evaluation

Summative evaluation, on the other hand, is carried out after the program has been implemented and taught one or more times. The information gained at this stage includes not only the extent to which the program is achieving the goals set for it, but also the extent to which there are unforseen advantages accruing to the students, the teachers or the institution. For example, one of the outcomes of a successful EST/ESP program might be increased student use of the library putting unexpected pressure on library personnel and creating stress at another point in the system.

5.

That briefly is an overview of the phases of development represented in the model. Each phase has listed against it interesting examples of the kind of work which can be carried out at that point. Readers may care to follow up the references for themselves in order to expand upon this limited discussion of a very large topic.

PRE-PROGRAM DEVELOPMENT STAGE

A stage of education decision-making during which an unsatisfactory situation is identified and an interest in and commitment to remedying the situation is expressed in the form of a RATIONALE.

THEN:	Focus on Purpose	Basic Information Gathering Phase
Point of departure--	Information	Munby
Provide--	Information about student needs	Richterich
From which are identified--	Special purposes in terms of operational skills	Mackay
	Focus on Language & Language Use	
On the basis of which are selected-	Texts	Mountford
Which provide--	Descriptions of some or all of the language deemed necessary	Sleinker; Selinker et. al.; Swales Tyma, Smith, Remler; see Pike
	Focus on Teaching, Learning and Testing	
From which are selected and sequenced--	Teaching points	Morrison; Cohen, et. al.
On the basis of which--	Teaching materials and testing instruments are developed	Morrow; Allen and Widdowson; Long et. al.
	Focus on Classroom Interaction	
And--	Appropriate methodological procedures for their exploitation	Phillips & Shettlesworth, Fanselow, Long

	Focus on Teacher-Training	
And--	Appropriate teacher-training is undertaken	Ewer; Selinker; Mackay and Bosquet
	Focus on Evaluation	
Then--	Materials are taught under observed conditions to determine their day-to-day effectiveness and subsequently modified in the light of feedback.	Mackay
And--	The congruence between the goals set and student performance is determined. Materials and methodological procedures are revised in the light of this information.	Summative Evaluation Phase Aiken and Bachman

A MODEL FOR PRACTICAL ESP/EST CURRICULUM DEVELOPMENT AND EVALUATION

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LETTER FROM COSTA RICA

(Editor's Note: The following letter is in response to a book review by Lita Verts carried in Issue 18 of the EST Newsletter.)

We have read your review of the books, Basic English for Students of Social Sciences and Humanities and Basic English for Students of Natural and Applied Sciences, which was published in issue 18 of the EST Newsletter. We feel it is necessary to provide you with some background information regarding these texts and hope this will clarify to some extent for whom the books were written and how they are used.

First of all, these texts were written expressly for the basic English program at the University of Costa Rica. They are not, as you stated, for "Spanish majors" but for Spanish-speaking, non-English majors, i.e. students majoring in any field other than English at the University of Costa Rica.

As the titles suggest, the books are meant to teach basic English and not scientific English. Our students have little or no background in English, and it is necessary to provide them with knowledge of the basic English structures before they can attempt a course in scientific English. Consequently, the reading passages were not chosen on the basis of scientific style but rather for their simplicity, area of interest and structural content.

Furthermore, we are convinced, after years of experimenting with this type of program, that in our specific situation the use of Spanish in the classroom is not only necessary but also advantageous. We have ninety hours of class time in which to teach the basics of the language to a mixture of beginners and false beginners. The practice of using the students' native language in courses that are geared to reading comprehension is gaining wide acceptance in Mexico, Central and South America. Exercises involving the students' native language can be valid and useful.

It is true that the instructions for some of the exercises are incomplete. However, when used in a Spanish-speaking environment, the meaning of directions such as "Translate" or "Circle the cognates" becomes obvious, and further explanation is unnecessary. Extensive explanations for grammar points were purposely ommitted. As you yourself stated, the books were meant to rely on in-class teacher clarifications of these points.

Due to local limitations, the texts were not typed by native speakers of English, and they were sent to press without thorough proof reading in order to meet the publisher's deadline. This resulted in a considerable number of errors, both grammatical and typographical. As soon as we realized this, we began working on a second edition to correct errors, clarify instructions and delete ambiguous items or exercises. The revised edition is now available.

We sincerely appreciate the time you devoted to reviewing our texts and intend to take into consideration those criticisms which contribute to their improvement. It is unfortuante that whoever gave you copies of the books did not take the time to explain that these materials were made for a very specific situation and were not intended to be used in any other context. In all honesty, we feel that your review misrepresents our texts, and this obligates us to respond in writing.

Very truly yours,

Bonnie Brown Gfrorer, M.A.
and
Lic. Jeanina Umaña Aguiar

* * *

Teacher's Book

ENGLISH FOR BASIC MATHS

Issue 20 of the Newsletter carried a review of David Blackie's recent ENGLISH FOR BASIC MATHS. We have since received the teacher's book that accompanies the text, which we did not know about at the time of the review. The letter accompanying the teacher's book said in part:

> "I am sending you a copy of the teacher's notes which by some oversight was evidently not sent to you. I hope you will agree that they answer the otherwise understandable criticisms of the 'lack of any kind of listening exercises', 'no introduction or teacher's notes of any kind', and 'no answer key'."

We consider the teacher's notes a very valuable item which does answer those criticisms and advise the readership that the teacher's notes makes ENGLISH FOR BASIC MATHS a much more complete classroom text.

*****

BOOK REVIEW

READING TECHNICAL BOOKS. Anne Eisenberg.
Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
1978. 241 pages.

By Barbara Killefer, INELEC, Algeria

In the introduction Anne Eisenberg states that the book has been designed to aid native English speakers studying in technical and industrial programs in community and junior colleges. In addition, she says that it would be useful to beginning science students, or anyone else who might find it applicable, i.e. high school students in vocational technology or career training programs or whatever. The book comes from New York Community College with collaboration from the Instructional Resource Center of the City University of New York and reading programs at Community College.

To quote Anne Eisenberg, "This book is concerned with (these) special features of technical books that make them difficult to read." She has identified the special features as: 1) new vocabulary, 2) familiar words that have acquired a different technical meaning, 3) the alternation of words and equations, 4) the specialized illustrations, and 5) the dense presentation of ideas. More precisely, she states that the chapters of the book are built to teach how to gather, organize, and remember information from a technical textbook--to this end it provides a system to improve the reading of technical texts. As can be noted in the title, the book focuses on reading; however, it is multi-skilled in that it employs writing to complete exercises and demonstrate manipulation of the acquired skill. Other language skills presented include vocabulary development, study techniques for note taking and test taking, and reading as applied to illustrations. The exercises follow a pattern of reading recognition of the topic, then recognition of the parts of the rhetorical structure followed by written production and requests to apply the material learned and other hints or helpful suggestions to real life textbooks and contexts.

The book is divided into three basic segments. The first segment consists of Chapters 1-6 where each chapter deals with a technical discourse pattern, such as "Definition of Terms." The second segment is composed of Chapters 7-10 where the topics are study skills in using a technical book, such as "Using Illustrations." The third segment is comprised of Chapters 11 and 12 where the subjects include building words, note taking, and test skills, such as "Building Technical Vocabulary Skills."

A chapter opens with a prose introduction to the topic, underlining the importance of the discourse pattern or skill to be treated. Then, an interwoven presentation of explanation and examples follows within which we find varied forms of the discourse structure, word and punctuation signals, and the significant difference between this discourse pattern and another one with which it might be confused. This information is then concisely summarized. The exercises follow. The exercises are carefully controlled to guide the student through progressively more difficult tasks of recognition and demonstrated production of the discourse structure. The progression of difficulty also proceeds in accordance with sentence level, paragraph level, and then text level. The emphasis is on practice, so the exercises are numerous (8 to 11 per chapter). The exercise material itself is all technical scientific and the discourse length increases from exercise to exercise within a given chapter. Though the material is realia, it is not beyond the means of either the English language teacher or the beginning science student. The passages are clear and unconfusing with appropriate, but not overly specialized, vocabulary.

Each chapter ostensibly ends with "Springboard Exercises" that suggest how the student might apply the acquired discourse skills to his real technical textbook (assuming he is taking a technical course simultaneously.) It also includes study tricks to remember information by using techniques like flashcards. In addition to the normal chapter content, Chapers 3, 6, 8 and 10 each end with a "Quick Progress Test." Each test deals with the information in the chapters between the last test and itself. They demand the written production of the discourse task by the student.

The ordering of the rhetorical (discourse) structures, and thus the chapters, proceeds in a building block sequence--from the basic to the more complex--as seen by the author. The material has been drawn from technical courses, introductory science courses, and engineering technology courses, and the examples are perceived as presenting the content of fundamental ideas in physics and chemistry which in turn impact upon a range of technical fields. The emphasis of the chapter is on the discourse topic; therefore, the examples and exercises are chosen to represent that particular pattern and all questions on the reading of passages purport to that discourse pattern.

The methodology employed takes the conceptual topic and presents it in all its varied forms and distinguishable patterns. Then after acquaintance-comprehension has been obtained, the exercises begin, walking the student through recognition of the pattern in increasingly difficult contexts and finally asking for production of the pattern in written response to a block of material that has been read. The step by step approach would allow self-study by advanced foreign students or native English speakers, because the examples are well laid out, though all explanation and indications are in basic English prose. The students would also benefit if this deductive style/approach/method could also be used with a teacher to guide, reinforce, and clarify the textbook. As far as I know, there is neither an answer book or a teacher's guide to accompany the text, though, as I mentioned before, the technical content is not outside the realm of the English teacher or humanities students. The content materials include appropriate diagrams and illustrations.

One criticism of the book might be that the production demanded of the student to demonstrate comprehension of a rhetorical structure stops at sentence level. In other words, the student is not asked to organize and write paragraph or composition length language using the discourse patterns.

I think that this book is an excellent text for lower intermediate to advanced students of English as a foreign language. Content, presentation, and exercises are all of excellent quality.

THE ENGLISH FOR SPECIAL PURPOSES (ESP) PROJECT AT THE SEAMEO REGIONAL LANGUAGE CENTRE, SINGAPORE

The main activity in ESP work during the first year of the project has been the writing of an experimental course in English for Academic Purposes (EAP), intended to assist Southeast Asian students in their first year tertiary studies. The bias is in favour of scientific and technological disciplines. Work on a final draft of the twelve units of the course is now approaching completion, and it is hoped that this 'Mainline Pilot Course' will be ready in all respects by July this year. A sample unit and the rationale have already been produced for explanatory purposes. Neogtiations are now under way with a number of institutions in the SEAMEO region for a trial use of the material during the period 1978-79. After evaluation and feed-back, a revised and probably expanded version of the course will be produced.

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[illegible] feature of the course is the wide use of graphic
A feature of the course is the wide use of graphic material taken for the most part from authentic technical study.

(Excerpted from RELC Newsletter, June 1978.)

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(FROM THE EDITOR) What is taught in the classroom is often directly effected by the available commerical text. Longman House has graciously cooperated with the Newsletter to produce this special issue which is concerned entirely with the view of EST from a major ESP publishing house. Karl Drobnic

WHAT'S DIFFERENT ABOUT PUBLISHING IN EST?

by T.M. Hunt, Longman House

Rarely are publishers of teaching materials given an opportunity such as this to enter into print about their work; they are usually too busy guiding others in the direction of publication (or away from it) or too wary from their own experience of the pitfalls to invite too much exposure. The articles which follow are by writers and designers of EST materials, who have also at one time or another given advice on EST projects submitted to Longman. I hope these articles give insight to some of the elements that make EST material worth considering for publication. They are written from the teachers' or course designers' stand point, which is only right, and not from the strictly publishing point of view. My task in this introductory article is to show how a publisher finds or even creates common ground between the creator and experimenter on the one hand and the final user of the material on the other. This is essentially the job of the modern publisher of teaching materials.

When it comes to any big ELT project it is most unlikely that the end product in the form of books or audio and visual aids represents the straight conversion of the work of one individual into printed form. It is much more likely to be the result of a long dialogue between the publisher and a writer, or more often these days a team of writers/teachers/advisers working to a carefully devised brief. This is not to deny individuality and writing talent. Invariably an author initially identifies him or herself through having created material for the classroom, tried it out and written it up for the publisher to assess. He or she will have done this by preparing a clear concise outline of who the book is for and what it consists of, as well as enclosing an equally digestible and representative sample of the material. If that so happens to coincide with an identical demand from enough like-minded teachers of similar circumstances and ability, then the project may go straight into print with minor revision. Typically such a book may be exam-oriented where the 'need' whether strictly appropriate or not is determined by outside forces such a syllabus, past exam papers and the like.

More often the process is more tortuous; an author or team will come up with a good idea in a certain area, for example general listening comprehension, and it will then be the job of the publisher to work up a brief for a project in that area for which a market need has already been identified, which will either be a part of a series or one-off 'singleton'. Such a brief invariably involves compromise. People who have bright ideas and write materials are rarely typical of the average user of teaching materials. Ideally all teachers should prepare at least some of their materials. Few have the time or the energy to do so, and look for published materials as a timesaving device. Clarity of organisation, attractive presentation and careful grading are often quite as important in 'selling' a book to a user as the quality and liveliness of the content and the validity of the learning goals. Many would-be writers overlook these aspects and remain too deeply rooted in their own teaching circumstances. Because they have 101 ideas already in their own repertoire on how to exploit a text, for example, they will either fail to provide any methodical presentation techniques or confuse the teacher with a wealth of exciting exercise types. Another pitfall is the overburdening of materials; it is easy for the teaching to assume that the material he is preparing will be the complete answer. That might be the case in his institution but it is much more likely that the outside world will have made its own patchwork of materials and is looking for a book with limited aims to fit into its programme. Specialist publishers in the ELT field, such as Longman, have for a long time recognised this and devised series based on similar or interlinking grading systems so that the individual institute can build up materials for reading, writing or listening alongside the core course. New authors can often find it rewarding and instructional to write to an editor's brief in one of these series.

But how does EST fit into all of this? Not always very easily is the short answer. I hope my sketchy outline of how in general ELT materials are published does not give the impression of a publishing juggernaut pounding down a straight road dragging a whole series of uniform trailers behind. Careful management of an integrated list does not mean this degree of conformity, and mercifully most EST projects would not fit so easily into such a rigid pattern anyway. Of its essence EST is in many areas individualist and specific. A truly institution-based needs analysis might well throw up materials requirements unique to that institution. In that case I am sure materials writers do well to provide for their own needs as best they can, rather than looking over their shoulder to possible fame and fortune in wider publishing of the materials. They may want to develop their materials over a number of years and wider publication could 'fossilize' their efforts. There are other factors against wider publication. Often time, facilities and equipment are available in far more abundance than at the average ELT institution and this of course means that teachers are more willing to experiment with 'incomplete' materials. ESP attracts the academic and career-oriented teacher, who often has firm and individual ideas and a need to experiment. The whole world of ESP is a new and rapidly changing one which is very adaptable in absorbing, trying out and rejecting ideas which it borrows readily from experimental work being carried out in departments of applied linguistics. Often the leaders in the field have moved on before their last ideas have filtered down to the more traditional publishers 'market'. The result is that an enormous wealth of material is currently being produced mainly in university service departments, very little of which is designed or intended for publication.

Another reason why materials are not always publishable, is the obvious one that they are just too specialised to be marketable. R.A. Close deals with this aspect in this article. My concern here is that talented ideas, because they are developed in very specialized areas are possibly being overlooked. Often teaching techniques and language skills development are integral with the subject content materials. In many cases I feel that the ideas behind the techniques can be presented fruitfully to the publishers providing the author is interested in applying his ideas in more general areas. It is interesting to note that experienced teachers cum writers who have moved from 'general' English teaching to EST and back again to, say, syllabus development at secondary school level are incorporating and exploiting EST ideas in less specialised content areas.

This brings me on to the other two articles in the small collection which follows. One is by Martin Bates and the other by Tony Dudley Evans, the joint editors of Longman's major series in EST: Nucleus. I think it is worth concentrating on this series both because of its novel and lively content, and because it is a model of course design. Naturally publishers are looking for common denominators, and in EST these tend to be found at the lower language level of 'common core' science and technology. For that reason alone Nucleus was an attractive proposal when it was first presented to me, but that was not the main factor influencing the publishing decision. Much more decisive was the lucid outline presented by the authors of the teaching situation, and the pragmatic way a plan had been devised which combined the following essential ingredients:

a) a clear analysis of student needs and learning styles which was sympathetic to the human factor as well as the strictly utilitarian language requirement.

b) a clear linguistic and content framework plus teaching procedure, valid both in itself and as a simple model for members of the teaching team to work to in preparing specific materials related to the 'core'.

c) a sufficiently long time span and commitment of the team to experiment and improve materials.

I believe these factors, combined with the essential creativity and flair of the editors and authors, made it possible to convert materials designed for one university into published books and tapes which are flexible in a wide range of situations. To draw an analogy with what I said earlier about publishers' series and user selection, I feel that the discipline of a strong 'core' to Nucleus has not only helped members of the team to become materials writers but provided a framework for the user which makes it possible to see how the material might fit individual programmes, what extension material might be needed etc. Space does not allow a detailed description of the process by which the original Nucleus project was converted into book form. Worksheets covering undifferentiated core and specific units became in turn the General Science course and the free standing but interlocking books on specific subject areas such as Biology and Nursing Science. A lot of hard rewriting and re-editing was necessary especially in the light of expert advice on the science and technology content. I hope Martin Bates' article provides some insight into this process.

CONTINUED ON PAGE 7.

ASPECTS OF TEACHING ENGLISH FOR SPECIFIC PURPOSES

By R.A. Close, Longman House

There is general agreement that the teaching of English for a specific scientific or technological purpose requires texts which relate strictly to that purpose and on which language exercises, relevant to the student's needs, can be based. If the student is not yet able to study the texts in English, they will nevertheless provide the source from which suitable material can be drawn. For the compiler and publisher of those materials three main problems arise.

First, the content of the texts. The variety of specialties catalogued under 'Science and Technology' is so vast that to produce separate language textbooks for each one is out of the question. In a few areas, e.g. medicine, the number of students interested is great enough to justify the publication of textbooks treating those subjects broadly. But even in medicine, for example, a case history of interest to one medical specialist may be of no concern to another, and the majority of medical postgraduates (for it is at the postgraduate stage that EST is most in demand) would regard the text as too narrowly specialized. Attempts to appeal to a wider readership often result in passages that are too patently artificial or too banal for the student preoccupied with his own demanding studies to bother about. The problem therefore is how to find authentic, interesting pieces that a wide variety of specialists would feel to be worth concentrating on.

Second, levels of language. We must consider at least four:

A. The basic, consisting of essential syntactic structure filled in with elementary content vocabulary. One can easily select simple content vocabulary that would be indispensable to EST. This kind of English could be taught to beginners, explicitly (as in *Nucleus*); or implicitly, if the student has *already* covered the basic ground without mastering it. In the latter case, remedial work would have to be done discreetly, lest the student feel that his time is wasted on childish exercises.

B. A level that would be applicable to any scientific purpose. This would include the language of observation and measurement, classification and definition, cause, effect, purpose, means, result, etc. It raises problems of selection of relevant linguistic features; and the often-overlooked problems of grading: for the student must, ideally, move from the simple to the complex. Grading concerns lexis, e.g. learning *see* and *notice* before *observe*; morphology, e.g. *observe* before *observation*; syntax, e.g. *X reduces Y* before *Y is reduced by X*. It concerns the syntactic devices by which purpose, means, result, etc. are typically expressed; and idiomatic constructions, notably collocational, such as the transformation of *Y solves Z correctly* into *Y found the correct solution to Z*. This is the crucial level; and on it the publisher frequently finds that the compiler has failed to reconcile a function/notional/communicative approach with a pedagogically practical grading of syntax, lexis and idiom.

C. A higher level subsuming A and B and including usages including technical terms typical of a not-too-advanced treatment of a specific subject.

D. The level of highest specialization, where words may be used in a unique sense or be replaced by symbols and formulae.

Third, who should produce and teach this material--the experienced language teacher; the trained linguist still with his eye on the latest researches; or the scientific/technological expert? Each of those three has much to offer. However, the first is apt to pay too much attention to grammatical and phonological subtleties and terminology, which could safely be ignored in the study of the specific subject: over-anxious about accuracy in grammar and pronunciation, and knowing little about science, he is often tempted to construct exercises out of decontextualized sentences on irrelevant topics. The linguist, intent on a methodological foundation for his textbook, applies the latest linguistic theories for their own sake and introduces conceptual abstractions even into his rubrics and chapter headings. The scientist/technologist, the only one of the three who can help the student at the highest level, and important if not essential as a adviser on the accuracy an up-to-dateness of the content at every stage, tends to take proficiency in English for granted--and often admits that he must do so, since he may be too busy keeping up with rapid developments in his own field to worry about the linguistic difficulties of speakers of other languages than his own.

When the language teacher, the linguist and the scientist/technologist co-operate, as they have done in the production of *Nucleus*, these problems can be overcome. *Unfortunately*, manuscripts submitted to publishers are often solo efforts in which some of the problems, at least, remain.

* * *

THE INTEGRATION AND ADAPTABILITY OF NUCLEUS MATERIALS

by Martin Bates, Longman House

Developing out of an actual teaching situation, *Nucleus* has proved adaptable to a wide variety of other situations in universities, technical colleges and even secondary schools. No doublt this was partly because the original learning situation reflected many typical needs of ESP beginners: a limited knowledge of English, little or no experience of applying it to academic study, a wish to read about one's subject coupled with a need to develop a more general communicative competence--all this in great haste. In addition, the academic goals of learning English were hard to specify, since most of the learning was initially in the mother-tongue and the use of English was mainly confined to more advanced stages of study. In designing a course to satisfy these needs, the authors had to seek out pretty basic elements of scientific communication, on which to build the core course (published as General Science), and also--because of split between learning and use--to make the learning process as interesting and varied as possible in itself.

One reason for the versatility of the series is its shared notional framework: selection of language and themes is based on a set of basic concepts, broad enough to be of interest to all branches of science and technology, and fundamental enough to be understandable to the layman as well as the specialist. These concepts comprise aspects of the physical and living world in terms of form (structure, property, location), measurement (dimensions, quantity, proportion, probability) and process (function, time relations, cause and effect, method). Each unit of each parallel course is built round one of these concepts, which provides the basis for choice of topics within the subject area of the book.

The conceptual framework of the course may serve as a bridge between the known and the unknown, both for the student--who should be familiar with subject-matter but new to the language of its expression--and the teacher--who knows the language but may be somewhat at sea with the subject. Linking the learning situations and activities to a concept--such as Cause and Effect--makes the language-learning more cohesive and memorable for the student and provides a means of entry into the subject for the teacher. Teaching can start off within everyday situations, or topics from very simple science (such as the effects of heating things, exposing them to light etc.) preferably involving demonstrations with real materials and processes and extending into the learner's own experience through project work and discussions. This leads on to processes within the sphere of the student's own subject, such as photosynthesis (biology) or the action of pumps (engineering).

In the original situation, this way of leading from general to specialised subject matter was built into the course, which comprised a core, set mainly in the everyday world, and a choice of branching course for different subjects, linked together by the conceptual framework. These have developed into the books General Science (core) plus Biology, Nursing Science, Geology etc. According to the original scheme, students did the core course in parallel with their specific course--one unit of the core followed by one unit of the specific, going from the everyday world to the world of their special(i)ty. The way the concepts linked together the various branches can be illustrated by taking one unit, e.g. Unit 9 which deals with Proportion. The core unit introduces key exponents like ratio, percentage, relatively/proportionately small etc, compared with...., the ...-er, the ...-er, directly/inversely proportional to..etc. Topics include the relative size of different things, the constituents of alloys, inverse and direct proportions in physics and chemistry (mass and acceleration, pressure and temperature etc.). Specific courses apply the common-core and semi-technical exponents of the notion of proportion to different subject areas, combining them with specialised language. Thus Biology deals with the relationship between size and supporting strength in plants and animals, the surface area/volume ratio and its effect on heat loss, food consumption etc. Engineering deals with the mechanism of gears and lifting machinery and ratios and calculations involved in their design, relationships in electrical conductors, proportions of materials in concrete etc. Medicine applies the notion of Proportion to the growth of the human body, factors affecting the release of hormones, proportions of acids and alkalis in the body etc. Geology applies it to the relative size of rock fragments, factors affecting the formation of river valleys, wave height, coastal erosion. Each specific course selects relevant items from the core and adds to them, combining them with features from earlier units; eg, in the case of Proportion, with the notions of Quantity and Causation.

By combining the core and specific books, students not only go from general to specific subject areas, they also go from activities encouraging group participation and spoken and written communication, mainly at sentence level, to the study of continuous reading and listening texts. An approach to reading and listening which starts off with active (and preferably entertaining) use of English is a key feature of the series. The published versions of the specific courses have been designed to be used independently of the core, by including some features from it--active use of language preceding reading and practise in "common core" language connected with the concept--in the opening stages of each unit. The idea behind the initial active exercises is that students become aware--through discussion, simple description, problem-solving etc--of the communicative effect of the language of Property, Structure, Probability etc, which they will encounter more densely in continuous texts, overcome their initial shyness of long texts in the foreign language, and, we hope, be motivated into participating actively in the interpretation of these texts, and relating them to their own experience and knowledge--an important part of comprehension.

Relating the learning activities to the student's own world is something we tried to do regularly through classroom discussions, demonstrations, project work etc. One of the dangers of publishing the material in book form is that open-ended, flexible ideas and activities may become rigid, water-tight, Holy Writ. Insecure teachers clutching at straws of irrefutable text may help to accentuate this process. We have tried to retain the original variety and adaptability of the material through suggestions in Teachers' Books for applying the skeletal situations to local surroundings. (Originally we entertained schemes for three dimensional and kinetic development of the material eg students role-playing bacteria--blessed with the gift of ESP and a desire to communicate among themselves--finding their way round models of the digestive system, but such activities proved difficult to squeeze between the covers of a book however soft.)

I think that the development of the material outside the confines of the printed page is feasible because of the emphasis placed on transfer from one situation to another within the book, and from book situations to others. Often this involves the use of diagrams (information transfer), which is educational in itself--the student learns how to interpret illustrations, charts, graphs, etc. in English--and potentially interesting, and often easy to extend to parallel situations. (Eg--interpret a pie-chart of student populations in a fictitious university, then devise a similar one for your own insitution.)

Transferring the use of language between parallel situations is connected with another important feature of the Nucleus approach--the development of reasoning skills (with use of logical connectives) through problem-solving, including verbalisation of formulas etc, and inference. Again this is aimed at both education and entertainment. Simple inference exercises include learning the properties of different materials then applying the new language by explaing why certain materials are used for certain purposes (Unit 1 of General Science, Engineering etc). A rather more complex example is this from the opening stages of Geology, Unit 9, where the concept is Proportion and the topic river valleys. Students are first presented with a model text which includes structures expressing proportional relationships:

2. Look at this example:

valley – wide / narrow – speed of water – slow / fast

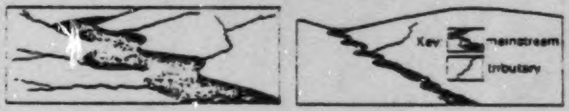
The wider the valley, *the slower* the speed of the water. *Conversely*, the narrower the valley, the faster the speed of water.

Therefore, the speed of the water *depends on* the width of the valley. i.e. the speed of the water is *inversely proportional to* the width of the valley.

(Note: the opposite of inversely proportional is *directly proportional*.)

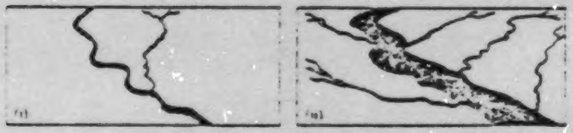
This is applied to a number of features of rivers in guided sentence production, eg:

d)



number of tributaries – great / small – amount of water – great / small

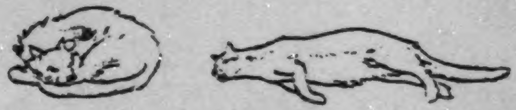
This develops into more open-ended questions about the movement of rocks in rivers, eg:



Two rivers: which can transport all sizes of particles and why?

Another example is from the parallel unit in Biology, where students, having first discussed the relationship of the size and shape of animals to heat transfer and diffusion of gases through the skin, apply this knowledge and language to explain specific phenomena, eg:

d) Why do animals sleep curled up in cold weather but stretched out in warm weather?



This kind of exercise can readily be extended beyond the confines of the book; eg the study of rivers can be applied to local environments; students can be asked to supply their own examples of slow and rapid heat transfer in living things, and explain them.

* * *

HELPING TEACHERS TO USE NUCLEUS

by Tony Dudley-Evans, Longman House

The draft materials eventually published as the Nucleus series were originally written and taught by a team of native speakers who were, because of their involvement in the writing, very concerned to make a success of the teaching of the materials. Now that the materials have been published, and are being used in a variety of situations the authors have been faced with the problem of preparing teachers who are less familiar with and less committed to the materials. In this article I wish to discuss the problems of training teachers and especially the questions of how much guidance teachers need to be given about the presentation of the materials, how they can be encouraged to extend the material and how much scientific background information they need to be given about the scientific content of the course. In particular I shall describe our experience in training secondary school teachers in Egypt where 'Nucleus' General Science is being used in the science streams of secondary schools as a preparation for study through the medium of English at tertiary level.

THE TEACHERS

Most are graduates in English Language and have a fairly high proficiency in the language but have had little training in EFL methodology.

Most are worried about teaching science orientated EFL material mainly because they seem to have an extremely limited knowledge of science. On training courses it has been found that familiarity with much that is considered general knowledge, such as the meanning of π or of the calculation of the area of a rectangle cannot always be taken for granted. John Swales in an article in 'ELT documents' [1] noted that such teachers seem hostile to ESP materials, and certainly the reaction "we aren't scientists, how can we teach this material" was initially quite common.

The decision to use General Science was of course taken by the Inspectorate for the reasons mentioned above, but it has been found that most teachers, although needing considerable help with both the scientific background and the presentation of the materials, are quite capable of using the book successfully. This is undoubtedly because, once the book was adopted, the teachers' professionalism forced them to come to terms with the book and to accept the need for it. The fact that the book has proved extremely popular with pupils has contributed to the breakdown of initial suspicion.

TRAINING

The training of teachers and inspectors concerned with General Science has had two aims. One is to give teachers a clear idea of the aims of the course in general and of each unit in particular. The other is to help teachers with the presentation and extension of the material.

It has always been found necessary to stress the basic aim of the course, which is to introduce pupils to the language of scientific communication through both everyday and simple scientific situations. Very often one is asked whether the aim of the course is to teach language or science. This is because one of the worries of teachers is that they will have to give lessons on, say, the atomic structure of chemicals, rather than what is intended which is to exploit various scientific situations for language practice. One always needs to stress that the scientific content is at a fairly elementary level and should, therefore, be familiar to pupils, and that teachers should draw upon pupils' knowledge in teaching the course. This does in fact seem to remove some of the teachers' concern at the teaching of the course. Another problem is that although teachers are quick to recognise the logic of using notions such as Measurement, Cause and Effect, as the framework of the course, they do need to be made aware of which particular exponents of these notions are being exploited. This is not of course made explicit in the students course and nor are the mechanics of, say, the passive, taught overtly (the authors considered adding a grammatical supplement to the course dealing with such points but this was eventually rejected). Some explanation is given in the present teachers' book but it has been found that much more is needed. Once teachers are aware of what items a given unit or section of a unit presents, and understand the scientific situations used, one can then move to discussion of ways in which the material can be presented and extended.

Teachers need considerable guidance as to the various ways in which the material can be presented in conducting oral drills leading into the exercises or for reinforcement, and in achieving a balance between the various skills. Much of this is a question of basic teaching methodology rather than ESP methodology. What causes difficulty is not the methodology itself but rather the fact that the teacher has to organise drills based on situations less familiar to him or her (as opposed to the pupils), than those in a general English textbook. A further problem is that General Science contains a considerable variety of activity - information transfer exercises, blank-filling exercises, true/false questions, etc.---and many of the exercise types are unfamiliar to teachers. One can draw up a classification of the exercise types in the book and then make general suggestions about their teaching, but it has been found that because of teachers' initial lack of confidence one needs to look at each exercise in detail and to consider the ways in which it can be tackled.

The normal training procedure, then, is for the authors to give demonstrations showing how oral drills, pair work, etc., should be carried out, and then for teachers to put these ideas in to practice into peer or 'micro' teaching. The emphasis is on increasing teachers' familiarity with the material and confidence in handling it in the classroom.

Teachers need to be encouraged to extend the material beyond the exercises in the book. This is partly because testing has traditionally concentrated on ensuring that pupils know what is in the book perfectly rather than on their ability to use the language taught in different contexts but also because teachers, although aware of the need to extend the material, find difficulty in doing so. They need specific examples. They also need to be encouraged to think of situations familiar to pupils which would be suitable for extension exercises, and to consult their colleagues teaching science to find out what other scientific topics familiar to pupils could be exploited. Most teachers once introduced to different ways of extending the material are able to produce excellent examples of their own.

---

[1] John Swales: 'Introducing Teachers to English for Science and Technology' ELT Document (73/6).

This training gives fairly detailed guidance to teachers. It differs considerably from the training one would give to native speakers or non-natives with near-native proficiency. These, if they needed a course at all, would benefit much more from information about the scientific content which they would be able to exploit in extension activities.

IMPRESSION OF THE TEACHING OF THE BOOK

I was able to visit several schools in which the book is being used. These visits took place at the end of the term and the lessons observed were largely 'revision' lessons but, nevertheless, it was possible to form an impression of how the book is being used. The teachers observed seemed well able to cope with the book, but most said that in the initial stages they had found it quite difficult to teach. One reason for this is that it involved extra preparation. Once teachers have become more used to the book they find it less difficult to teach, particularly as they have seen that most of the scientific content is familiar to pupils and does not, therefore, cause either pupil or teacher too much difficulty.

Many teachers would appear to be using the book with flexibility and initiative. In those classes observed where new material was being taught the use made of 'realism' and the constant revision of material from earlier units were very good. In one class dealing with Unit Four - Measurement - the teacher had a variety of objects such as a cylinder, a cone, a thermometer, which were used for revision before the new items were introduced. Students were then asked to measure the dimensions of objects themselves and to make simple calculations about their area, volume, etc. In another class the teacher assembled the actual apparatus for the distillation of alcohol presented in Unit 5.

Many other teachers, however, are using the book in a rather more rigid fashion. It was particularly noticed that many pupils appear to have learnt much of the book by heart. For example, in one class several girls were able to answer without reference to the book or a diagram. 'An atom of carbon consists of a nucleus, electrons, and empty space'. In another class a boy when asked what the room contained answered 'It contains chairs, tables, a blackboard, and a map'. There was no map in the room but there had been when the unit was taught. Learning by heart is, of course, a normal activity in Egyptian schools and it may well be that it can be used effectively in teaching the material, provided that pupils are able to use the items learned in different contexts. The danger is, of course, of much of the book being learnt by heart for examination purposes.

My main conclusion is that now that there is an increasing acceptance of the need for ESP teaching and this teaching is being increasingly taught by non-native speakers, one must consider ways in which such teachers can be trained to use ESP materials effectively. It has been found that, given careful and tolerant guidance non-native speakers cease to be hostile, and can cope very well. Often, because of their awareness of the pupils' background and learning styles, they may teach the materials more effectively than native speakers.

-*-*-*-*-*-*-*-*-*-

Continued from page 2.

...DIFFERENT...

by T.M. Hunt

Finally on Nucleus, Tony Dudley Evans has written about the application of the core book General Science to a situation quite different from the one it was originally devised. Again it is the clarity of design and appeal of the material that made the transfer possible in the first place. The teacher training aspect is another development in the work of the specialised ELT publisher, but one which is only feasible on a big scale when materials are applicable to a large homogeneous group of teachers.

I do not want to leave readers with the impression that there is little room for specialised EST materials. There is, but in publishing terms it is important to look beyond parochial needs and to see that the publishing disciplines applicable to General English materials are equally important in published EST materials. At the same time I am equally sure that many of the exciting ideas being developed in EST, especially those relating to subject content and language activities involving meaningful communications, will increasingly emerge in so-called 'general' ELT materials.

****

FROM THE EDITOR:

I hope you have found this special issue a valuable addition to the literature of EST. A third special issue, a close look at a particular EST program in Algeria is scheduled for Issue 24. Future directions for special issues will be on the agenda at the Clearinghouse meeting at TESOL Boston, scheduled for Weds. evening immediately after the Plenary Session. I hope you will all attend. -Karl Drobnic-

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ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY

EDITORS

Mary Todd Trimble Louis Trimble Karl Drobnic

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KARL DROBNIC, EDITOR
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FROM THE EDITOR:

The 1979 TESOL Conference in Boston is fast approaching. The EST Clearinghouse meeting has been scheduled for Wednesday evening, February 28, immediately following Bernard Spolsky's Plenary Session. The meeting will be in the Sheraton, Room Hampton A1B. The purpose of the meeting is to provide for direct readership input into Clearinghouse activities, and to provide all those interested in EST with a focal point for making acquaintences early in the convention.

Such topics as setting themes for Year 3 of the Newsletter, new publications that the readership would like the Clearinghouse to encourage, the 1979 EST Teacher Training Institute, and other matters will be on the agenda. The meeting is conceived of as participatory in nature and will be designed to encourage the mixing and meeting of colleagues.

I hope to mail each of you a copy of the agenda about the middle of February; copies will also be available from the Oregon State booth in the exhibition area and will be posted on the conference message board. I look forward to seeing many of you in Boston.

* * *

1979 EST TEACHER TRAINING INSTITUTE

The faculty of the 1979 EST Teacher Training Institute has now been set. John Lackstrom, mainstay of the 1978 Institute, is the Curriculum Coordinator. He will be joined by Louis Trimble and Mary Todd Trimble from the University of Washington. John Swales will be coming from England, bringing his years of on-the-job experience in Libya and Khartoum that has included EST teaching, writing, curriculum development, and teacher training. Henry Widdowson will not be able to join us due to a conflicting commitment at his home institution.

The Experiment in International Living is again co-sponsoring the Institute with OSU, and Steve Hanchey (ELI) will be assisting Bill Longenecker and myself in the various administrative aspects of the Institute. We hope to have set application procedures and prepared a curriculum announcement in time to release to Newsletter subscribers before TESOL Boston.

The 1978 Institute has already been the subject of presentations at several ESL conferences, and those of you attending TESOL Boston will have a chance to hear more about it at the College and University SIG panel on ESP. Several of the 1978 Institute participants will be at TESOL and at least four are giving presentations related to ESP (George Bozzini, Patrick Carmichael, and George and Celeste Scholz). Information about the 1979 Institute will be released on a regular basis through the Newsletter and will be available at TESOL through either the ELI Booth or the OSU Booth, or by contacting Steve Hanchey, Bill Longenecker or myself.

* * *

ERROR IN ISSUE 21

The order blank in Issue 21 for the recently released ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY erroneously listed the price at $5.00. The correct price is U.S. $3.50. The book is just over 400 pages and covers five different areas of ESP. (See page 7.)

* * *

IATEFL-POLAND

Mary Todd Trimble and Louis Trimble will give a paper entitled "Individualization in ESP Courses" at the IATEFL-Polish MLA conference in Poznan, Poland 13-20 April, 1979. The conference theme is individualization.

EDITOR'S NOTE: The following report by Jack Humbles has been shortened to fit the Newsletter. The complete text includes a bibliography and appendices, and is available through the Clearinghouse. (See bibliography).

OBSERVATIONS ON READING TECHNICAL ENGLISH BY NON-NATIVE SPEAKERS

By Jack Humbles, Ohio University

INTRODUCTION

This is a report concerning some observations on teaching reading of technical material to non-native English speakers. For twelve months during 1977-78 the author was involved in an intensive English language program in Saudi Arabia. In this program the students studied English six hours a day for about eight months. Then the students were put into an electronics program in which their teachers were all native speakers of English and the texts and teaching aids were all intended to be used by native speakers. They studied electronics six hours a day with no additional training in English.

This is a continuing program, and as new students were brought into the language program it was greatly changed. The biggest change has been in the teaching of reading. It is felt that one of the most effective ways of teaching reading of technical material is to use the actual texts which the students will be reading in the technical program. This paper tends to support that idea.

For security reasons the author has been asked not to identify this program; however, he would be happy to explain the program and the method of teaching reading to interested teachers. He can be contacted at the following address:
R.R.2, Box 22, Fortville, IN. 46040.

Many articles have been written on teaching the non-native English speaker how to read technical English. In most of these articles it is claimed that the students "learned well" or that they "enjoyed" the new method, but no evidence is presented to show that the students did indeed improve their ability to read technical English. Some articles go into great detail and give long involved procedures which are to be followed. Others claim that reading cannot be taught--it is learned. Having taught biology, chemistry, and physics to non-native speakers before receiving any Teaching English to Speakers of Other Language (TESOL) training, the author quickly identified with the work of Peter Strevens who says that teaching academic subjects in the target language is a remarkably effective means of teaching a language. Recently the author was involved in an English language program and was able to make some interesting observations on the progress of students learning to read technical English. In this paper he would like to offer two lines of evidence which support the idea that students learn to read technical English by reading the required academic class texts.

The first line of evidence came from studying test results of the students who had completed the intensive English program and were in a regular electronics program. After approximately eight months of intensive English, the students were taught electronics for six hours a day by native speakers of English who had no training in TESOL. The students studied three books in the series Basic Electronics Systems Technology which were written for native speakers of English. It has been the experience of the author that when teaching science to native speakers an individual's grade might show a steady increase over a period of a few months. However, if the results of the two electronic classes are studied, it can be seen that in both classes the class average over each of the three books has increased. It seems clear that these students have improved their reading ability by reading.

TABLE 1
CLASS AVERAGE ON FINAL EXAM OVER
BASIC ELECTRONICS SYSTEMS TECHNOLOGY

Class	Book One	Book Two	Book Three
A	93%	97%	99%
B	78%	87%	92%

The second line of evidence came from using the "Cloze" test on two groups of students. Group One was composed of students who had completed at least eight months of intensive English with one month of technical reading and vocabulary. This group then started studying electronics six hours a day without additional English instruction. Group Two was composed of students who had completed at least eight months of intensive English with one month of technical reading and vocabulary but who the English staff felt might benefit from an additional three months of intensive English six hours a day. This group received help in general reading, writing, aural, and oral skills. Both groups were given a "Cloze" test based on the electronics text. A second "Cloze" test made up from the same text was given at the end of the three month period.

It can be seen from the table given below that Group One had an average gain of sixteen points on the second "Cloze" test after having studied only electronics. Group Two, the group which studied all four language skills, showed no gain on the second "Cloze" test. Since the "Cloze" test is considered to be a good test of reading ability, it must be assumed that the students studying electronics improved their reading ability more than the students studying English!

TABLE 2

GROUP AVERAGE ON "CLOZE" TEST

Group	February Average	May Average	Gain
One	22%	38%	16 pts.
Two	14%	13%	-1

When the students in Group Two were given a general English proficiency exam, they did show improvement. One of the main reasons why they did poorly on the "Cloze" test was their belief that the test was testing technical vocabulary and knowledge of electronics. This greatly affected their attitude.

In conclusion it can be seen that students improve their reading ability by reading. Two lines of evidence were given: first, an over-all class improvement in electronics class test results without additional English instruction; second, a comparison of the results of "Cloze" test class averages of two groups of students studying under two different methods. As a result of this study, it could be suggested to teachers of technical English that the actual academic texts be used in the English program as readers.

* * *

ESP WRITING

The American Institutes for Research has recently started a project to foster clear and simple writing and design in public documents.

As part of the project, we would like to exchange information with colleagues about research, practical experience, and teaching in related fields. We would be very interested in having copies of research papers, descriptions of document revisions, and information on exciting curricula on writing. We hope you will share your work with us now and put the Document Design Project on your mailing list for the future. We would also appreciate hearing about others who are working on related topics.

If you have any questions about this new project, please don't hesitate to call or write. Contact:

Janice C. Redish, Ph.D.
Project Director
The Document Design Project
A.I.R.
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* * *

AILA REPORT, MONTREAL

Ron Mackay, Concordia University

Section IV: Languages for Special Purposes

The last four AILA congresses have nurtured the emergence of Languages for Special Purposes as a dynamic field of study within the domaine of applied linguistics. It is fitting, therefore, that the 5th AILA congress was the occasion of the official recognition of this section as a formal sub-commission of AILA with Prof. Max Gorosh as its chairman.

While the twenty-one papers presented in Montreal and the discussion they generated in the workshops were thematically coherent, their individual contents either focused upon or related to a wide variety of areas which we are familiar with under the broad umbrella of applied linguistics. The papers, fifteen in English and six in French, drew upon the techniques and findings of: language planning; educational administration; curriculum design and evaluation; testing; classroom discourse; linguistic and semantic description; experimental design; language learning; teacher training; model building; and educational technology, in order to address unresolved questions facing practitioners in the field of languages for special purposes. Thus, the dynamism of this sub-commission may be due more to its synthesizing character than to its novelty or uniqueness. In drawing so widely upon aspects of the field, the LSP papers demonstrated not only their eclectic nature but also the quality of outcome which is possible when well known shapes are arranged into new patterns.

* * *

EST JOB OPENING

Assistant professor, entry-level. Ph.D. in linguistics. Primary specialization: teaching English as a Second Language (TESL); secondary specialization: scientific and technical discourse. 3-course load, primarily undergraduate and graduate foreign students: English as a Second Language instruction and technical writing instruction. Evidence of teaching ability required. Scholarly and/or funded research in linguistics, scientific and technical discourse, or technical and professional communication expected. A non-discriminatory, affirmative action employer.

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* * *

EDITOR'S NOTE: The following excerpt is from a 53 page study prepared in Romania. The complete text is available through the Clearinghouse. (See Bibliography.)

THEORETICAL PRELIMINARIES FOR APPROACHING ENGLISH TERMINOLOGY IN SHIPBUILDING

by Nicolae Sejan

It is fairly widespread practice to talk about "scientific" English and "literary" English as two distinct forms of language. Many researchers, Prof. Widdowson included, suggest that it is preferable to think of "scientific" and "literary" English not as different forms of language but as different ways of using the same language. Both are kinds of communication, and it is in terms of their communicative function that one can best understand how they differ, and how they are alike. We have to accept that both the literary writer and technical writer use language to communicate aspects of reality which are not immediately apparent to people in general.x)

On the other hand, as Leonard Bloomfieldx) maintains, the use of language in science is specialized and peculiar. In a brief speech the scientist manages to say things which in ordinary language would require a vast amount of talk. His hearers respond with great accuracy and uniformity. The range and exactitude of scientific prediction exceed any cleverness of everyday life: the scientist's use of language is strangely effective and powerful. Along with systematic observation, it is this peculiar use of language which distinguishes science from non-scientific behaviour. By way of illustration, here is brief excerpt from a book on naval architecture:x)

"There are two main parts to a ship: the hull and the machinary...

Diagrams I and II are most self-explanatory. The rear portion of the ship is termed aft, and the extreme rear end is called the stern. When moving stern first, the vessel is regarded as moving astern. The front portion of the ship is termed forward, whilst the extreme forward end is called the bows. When moving bows first, the vessel is regarded as moving ahead. Fore and aft are related terms, and often mean the same as bow and stern".

In an essay on the character of the language of science Theodore Savoryx), a zoologist and a linguist at the same time, describes this language with its enormous, unambiguous vocabulary, its comfortable limitation of choice, its absence of humour, its eschewal of grace and poetic associations. Resigned to the limitations on the expressive power of scientific language, Th. Savory exults in its precision, its logic and its freedom from the restraint of taboos.

It was shown many times, that among the characteristic features of the words of science were their constancy of meaning, their ugliness and their emotional neutrality. It might therefore be argued that the language of science and technology must show the same qualities as its constituent words, and must be unchanging, ugly, insensitive. This is true only within limits. There is a 'holism' about language, an emergence of new qualities of its components, which gives to a sentence something not found in its separate words, and to a page something not present in a single sentencex). In science and technology one word has, or should have one meaning only, so also there is usually only one word to express a particular meaning. It appears that in this respect the scientific author is to be envied, for, provided that he knows what he wants to say, there should be few alternatives in his choosing of his words. Ideally there should be no alternatives, only one selection of words should be admissible. This would seem to suggest that the writing of scientific prose should be comparatively easy. Of course, this is true only in so far as one's paragraph is rigidly scientific.

Here is an example also from "The Elements of Shipping"x).

"Cargo vessels can be classified according to their hull design and construction. Single deck vessels have one deck, on top of which are superimposed three "islands": forecastle, bridge and poop. Hence, such vessels are commonly referred to as the "three-island type".

Such a paragraph is normally easy to write, and is not necessarily dull, as Th. Savory means to suggest in the above mentioned essay. Besides a language whose first qualities are precision and lucidity should be a language of great power. In other words the language of science possesses great powers of penetration, carrying its readers to the core of a problem.

Another important feature of scientific language, which I shall discuss in some greater detail later, is the use of symbols, or the habit of making use of symbolic statement of facts. It reaches its highest development in mathematical physics. Within the limits of elementary knowledge, a familiar formula like $\sin(A+B) = \sin A \cos B + \cos A \sin B$, can be used without the smallest need to think of the words in which sines and cosines are defined.

Science has freed the intellect from dependence on concrete visualizable conceptualizations --largely through introducing mathematical operation as a generator of concepts.

The ideas mentioned above may perhaps be summarized by saying that the writer of the language of science must from the outset abandon all thought or hopes of achieving eloquence. However, he should have the power to achieve distinction. He runs a much smaller risk of using the wrong word.

---

x) Ibidem, p.283.

x) Leonard Bloomfield, Linguistic Aspects of Science. I.E.U.S. vol I, nr.4, Chicago, 1969.

x) Alan H. Branch, The Elements of Shipping, p.3. Printed in Great Britain by Cox & Wynan.

For Anatol Rapoport,x) A mathematical biolgist and semanticist, the notion of the language of science as consisting of an esoteric vocabulary or a completely prosaic one is incomplete. In the areas of physics and mathematics, simple, common words--group, field, limit, neighbourhood, force, mass--are used to denote extremely complex notions which do not require concrete visualization.

According to Rapoport, the advantage that science has over other areas which also use "abstract visualizable concepts" but which often require large and complex vocabularies-psychology and philosophy, for example--is that science builds up "simple concepts into complex ones by clearly prescribed rules". In philosophy no mathematical formula can prescribe the connection between honest virtue, and happiness--to give only one simple example. According to Anatol Rapoport, there are two widely held notions about the language of science: first, that the vocabulary of this language consists largely of words difficult to spell and to pronounce; second, that it is an extremely prosaic language, a language of factual reports, one that excludes both sentiment and images. These two notions, Rapoport continues, are held by non-scientists both by those who hold the language of science in disdain and those who are awed by it. To avoid any confusion in such fields as, say, natural sciences, Latin has been adopted as the universal language of biological taxonomy. The necessity for long and difficult vocabulary is thus demonstrated in this instance.

In summation, Rapoport's concern is not with the issue of whether the often outlandish vocabulary and the graceless style of scientific writing is a good or bad thing. Instead he makes a case against the assumptions made by both the foes and by many of the friends of the scientific attitude, namely, that the language of science necessarily depends on a large and esoteric vocabulary and that this language is necessarily devoid of poetry. He argues that just in those areas of science where the richest and most profound insight abound, the reverse is true: 1) the vocabularies are small and consist of short, commonly used words; 2) the elements of poetry, such as symmetry of expression, figures of speech, and rich imagery abound. The author primarily refers to mathematics and physics as important manifestations of the language of science. He gives examples such as: group, ring, field, trace, norm, etc.--key terms in the vocabulary of modern higher algebra; limit, function, converge, pole, etc.--from the vocabulary of analysis--another of the main branches of mathematics; force, mass, work, power, energy, field, charge, potential, etc.--from physics.

Rapoport concludes by saying that it is impossible to explain the meaning of a single one of the words above to anyone who has not had literally years of certain kinds of experience. Thus it appears that in important areas of science, far from using complicated words to denote simple notions (as many believe), the language of science uses very simple words to denote exceedingly complex notions.

ALSED CONTACTS

Jerome Ford is the American coordinator for the UNESCO-sponsored ALSED. The present aim of international coordination for ALSED is to put people of different countries in contact with each other concerning the use of languages for special purposes (LSP). In the U.S. this is primarily English for special purposes. He is therefore endeavoring to establish a point of contact for the exchange of information of LSP.

He invites interested parties to identify themselves so that a file of names can be created for international contact. He asks subscribers to send him a post card with the following information:

NAME: ADDRESS:

Areas of interest in ESP or LSP:

Have you written material on ESP/LSP? What topic?

Are you actively teaching in this area? What level and material?

Are you interested in contributing material for a conference or textbook on the subject?

Are you interested in critiquing materials?

Are you available for consultant work?

Contact: Dr. Jerome C. Ford
1419 Admiral Drive
Woodbridge, VA. 22192

CONTACTS WANTED, BRAZIL

The Federal University of Ouro Preto is at present offering its students a course of English for Special Purposes (or English for Science and Technology) in the fields of Mining, Mettallurgical, Geological and Civil Engineering. It is their intention to create a Department of Language for Special Purposes in the fields of Engineering and Pharmacy in the near future.

They are trying to contact people all over the world who are developing similar courses in order to exchange materials and ideas. Contact:

Ciomara Ferrerira Campos
Departament de Ciências Sociais a
Econômicas - EMM - UFOP
English Course
Praça Tiradentes, 20
35,4000 - Ouro Preto, MG
Brazil

BIBLIOGRAPHY

The following articles are newly available from the Clearinghouse. The price covers the cost of copying and postage; no profit accrues to the Clearinghouse from their dissemination.

Bejan, Nicolae. "Theoretical Preliminaries for Approaching English Terminology in Shipbuilding" University of Galati, Romania. 1977. $2.78

Christy, Erik. "General Procedures of ESP Administration" Collected from EST Newsletter, Nos. 12, 13, and 17. Corvallis. March, April and August, 1978. 80¢

Drobnic, Karl. "Outside Linguistics: ESP As Historical Response" Presentation at 2nd Annual ORTESOL Conference, Portland, OR. November, 1978. 88¢

Humbles, Jack. "Observations on Reading Technical English by Non-Native Speakers" EST Newsletter, No. 22. Corvallis. January, 1979. 80¢

Kennedy, C.J. "A Video Course for Teachers" University of Birmingham, England. August, 1978. 68¢

Mackay, Ronald. "Practical Curriculum Development and Evaluation in ESP/EST" EST Newsletter, No. 20. Corvallis. November, 1978. 52¢

Phillips, Martin. "Report on 5th Congress of the AILA" English Language Center, King Abdulaziz University, Saudi Arabia. September, 1978. 88¢

Selinker, Larry; R. Mary Todd Trimble, and Louis Trimble. "Rhetorical Function-Shifts in EST Discourse" TESOL Quarterly, Vol. 12, No. 3. Washington, D.C. September, 1978. 80¢

ESP AT TESOL BOSTON

A number of reports have come in from various sources describing papers and workshops of special interest to Newsletter subscribers. These include:

1. Judy Cooper and Patrick Carmichael, Writing Notional Exercises for the ESP Student (Workshop)
2. Ann Johns, Cohesive Element Error in the Writing of ESL Students (Paper)
3. George E. Scholz and Celeste M. Scholz (Paper) Testing in an EFL/ESP Context
4. Janice Yalden, Lynne Young and Waltraud O'Brien (Workshop) Functionalism in a Curriculum for Academic and Special Purposes
5. Louis Trimble and Mary Todd Trimble, Factors in Designing Language Materials for Specific Purposes (Workshop)
6. Gill Sturtridge, Communicative Language Teaching and Functional Materials. (Workshop)
7. College and University SIG program; Catherine Tansey has organized an ESP panel that will include John Lackstrom, George Bozzini, Erik Christy, and Ann Johns.

* * *

ARTICLES WANTED

Elizabeth Smyth, ETIC, is at present engaged upon collecting articles for a future issue of "ELT Documents". The tentative title is Team Teaching in ESP. She would like to hear from those who have run courses along the lines of two teachers in one class, one teacher a language specialist, the other a subject (e.g. engineering) specialist. Contact:

Elizabeth Smyth
ETIC
The British Council
10 Spring Gardens
London, SW1A 2BN England

Ms. Smyth writes that she is trying to collect a number of papers, 2,000 to 4,000 words each. She cannot guarantee to publish everything sent her, but wishes very much to hear from places where this combination has been tried out. Articles need to be to Ms. Smyth not later than the end of March, 1979.

* * *

OCCUPATIONAL COURSES

The U.S. Air Force has developed occupational courses in the following fields:

Automotive Mechanics
Communication Arts
Education
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Meteorology
Food Service
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A catalog describing these courses is available from The National Laboratory for the Advancement of Education, 1750 Pennsylvania Ave., NW. Washington, D.C. 20006

NOW AVAILABLE:

ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY

EDITORS

Mary Todd Trimble   Louis Trimble   Karl Drobnic

ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY is a five-part collection of articles reflecting the growth of EST from an isolated academic phenomenon to its present status as one of the most important and innovative language teaching movements of the current decade. Published by ELI; Oregon State University.

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EST CLEARINGHOUSE PUBLICATIONS AVAILABLE

In addition to the regular services of the Clearinghouse, the following publications are available through the Clearinghouse.

38 ESP TEXTBOOK REVIEWS

38 EST textbooks are reviewed by the participants of the 1978 EST Teacher Training Institute. Over 180 pages. Each review in a standardized format.

$6.00 US., Canada, Mexico
$9.00 Overseas airmail

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VOLUME #1, EST NEWSLETTER

Est Newsletter Year 1, April 1977 to March 1978. Issues 1-12 of the EST Newsletter, compiled and stapled two on the left side. A handy reference tool.

$4.00 US., Canada, Mexico
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ISSUE 23
FEBRUARY, 1979

english for science and technology

KARL DROBNIC, EDITOR
ELI ADS A100

(503) 754-3006

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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FROM THE EDITOR:

In laying out this issue of the Newsletter, I was struck by how much of it is taken up with Clearinghouse business. I can promise a return to the information-sharing format more characteristic of the Newsletter for next month. No. 24 is already laid out and being typed; it is a Special Issue featuring EST activities at the INELEC program in Boumerdes, Algeria.

In the meantime, I would like to comment on some of the Clearinghouse business that spreads across the back four pages of this issue. It is time to renew for Year 3 of the Newsletter. (See back page.) Remember that all subscriptions begin in April and end with the March issue, and that if you subscribed at some other point in the year, your subscription was back filled to April, 1978. The subscription price remains the same as last year. It will be exceedingly helpful if those planning to renew would do so by April 1.

I still get occasional comments from people mentioning that they have to cut up their copy of the Newsletter to use the various order blanks, etc. Most people solve this problem by xeroxing the order blank involved and sending in the xerox copy. This method works especially well when ordering items from the bibliography section, and is the procedure I recommend.

I also hope that all of your will take time to read over the agenda (see page 5) for the Clearinghouse meeting to be held at TESOL Boston. The meeting has deliberately been scheduled for Wednesday evening so that the readership will have the opportunity to make each other's acquaintence early in the convention. If you will not be in Boston, your written comments on agenda items are more than welcome. The Clearinghouse concept is viable so long as it reflects the concerns of the users of its services, and the annual meeting is pivotal in determining what Clearinghouse projects and Newsletter themes will be emphasized in the coming year. I might point out that TESOL Miami led to the publication of ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY, and that TESOL Mexico bred the 1978 EST Teacher Training Institute. The Clearinghouse is always open to new projects.

Sales of the book ESP: S&T have been encouraging so far and we expect the limited first printing now available to be sold out by early March. The book may then be unavailable for a few weeks while we prepare the second printing, so if those who have adopted it as a text for their classes would inform me of their projected needs for Spring term, we will reserve copies out of present stocks for shipment later.

Finally, a word about the EST Teacher Training Institute, both last year's and the 1979 program. The December/January issue of the Linguistic Reporter (Vol 21, #4) carries a report on the 1978 TTI by one of the participants, George Bozzini, that is quite informative. Meanwhile, information on the expanded 1979 program can be found in this Newsletter. Subscribers should also have received by now a separate mailing giving complete details.

See you in Boston, Room Hampton A1B, Wednesday evening following the Plenary Session!

* * *

CATALOGUE AVAILABLE

Heinemann Education Books now has its U.S. catalogue available. Anyone who has not received a copy may write for their free copy to:

Heinemann Educational Books
Four Front Street
Exeter, New Hampshire 03833

* * *

DISSERTATION AVAILABLE

EDITOR'S NOTE: The dissertation abstracted below is almost 400 pages. It will be available from the Clearinghouse on "special order" basis. Cost will very according to how many people request copies. A reasonable estimate, copying plus surface postage, is $15. Those desiring copies should write, so stating, by March 15. You will be billed after shipment.

OPTIMUM FOUNDATIONS OF ENGLISH TECHNICAL LITERATURE AND THEIR APPLICATIONS TO THE COMPREHENSION TRAINING OF NON-ENGLISH SPEAKING SCIENTISTS: A STATISTICAL APPROACH

by Francoise Salagar,
University of Texas, Austin

The morphosyntactical characteristics of Technical English literature (T.E.), i.e. the written language used in Engineering, were quantitatively determined through a statistical analysis, covering the structural and non structural vocabulary as well as sentence patterns.

A linguistic corpus of 100.000 words of natural language test was randomly selected among technical and engineering material; it comprised 50 sample-texts of approximately 2.000 words each, distributed among 7 categories depicting the full range of engineering subject matter.

Reference data were taken from Kuvera and Francis statistical analysis of general English literature (G.E.).

The lexical statistical analysis was carried out with the root as the basic unit; this allowed to reduce considerably the number of hapax legomena which plague such studies.

Using index cards, the frequency of occurrence of each root was recorded for each one of the 50 texts. Next, the average frequency, standard deviation and range were calculated, as well as the equivalent average frequency in general english adapted for the root from Kuvera's listing. One thousand four hundred and seventy six roots corresponding to 96,340 token words were found above the 0.05 / level of statistical significance (i.e. once every 10 texts).

A so-called homogeneity test based on the frequency-range correlation for G.E. was designed and used to separate the specialized Technical English vocabulary (i.e. the roots which were not common to all engineering texts, or in other words which were used only in one or a few engineering fields exclusively) from the rest of the vocabulary which was statistically common to all the 50 texts tested.

An ANOVA test allowed then to separate the second category into two strata: Basic English or B.E., i.e. the roots common to all english text) and Fundamental Technical English (FTE) or (the roots common to all the 50 Engineering texts but not happening with the same statistical occurrence than in G.E.). A certain number of roots were found to exhibit a bimodal distribution: one mode corresponded to a very specialized T.E. meaning, and the other to a G.E. meaning.

We thus arrived at a quantitatively determined stratification of TE lexicon. Each stratum is given in the appendices.

The BE layer (538 roots or 36% of the total number of recorded roots but represent as much as 55% of the tokens) could be labeled "linguistically neutral context free words." It comprises:

- general structural words (and, or)
- synonymous lexemes of latin and saxon origin (family-group; fashion-mode)
- words borrowed from the general language which either the root or one of its derivatives have acquired a scientific connotation (act - reactor; carry - carrier; mass; square)

The FTE layer (320 roots or 22% of the total number of recorded roots) and 17% of the tokens comprises high-frequency context dependent words occurring across engineering disciplines which have a common focus on research, analysis, description and cause-and-effect relationship. It is the language of logical mathematical reasoning.

The FTE stratum is also characterized by specific inter-lexical combinations (syntax) and intra-lexical combination (affixation).

Finally the STE (613 roots or 42% of the total number of recorded roots, but 24% of the tokens) layer is made up of a) words borrowed from the general language which have acquired a precise scientific technical meaning; b) Greek affixes; c) terms lifted intact from Latin and d) technical jargon.

The point of interest here is that the FTE layer has a direct bearing on the TE recurrent morphosyntactical devices because most of the FTE lexemes trigger some definite grammatical patterns which have also been quantitatively determined. Gerunds after FTE structural words, infinitive constructions with "to be" after FTE content words; high frequency of the auxiliary and modal verbs (be-can-may) explains the high occurrence of the passive voice - a well recognized TE feature, the high frequency of nominal phrases involve most of the time FTE lexemes. Finally, the recurrent TE affixes have been visually scanned only. In order to underline some linguistic universals of Technical literatures, examples have been drawn from Russian, German and Grench Technical prose.

The penultimate chapter deals with the optimization of EST teaching: objective function, variable, competitive factors and constraint are defined and the procedure is explained.

Finally, some pedagogical implications are proposed which should be verified with control and experience groups.

* * * * * * *

BASIC ENGLISH FOR SCIENCE

(London. Oxford University Press 1978. 153 pp.--students' text. 149 pp.--teacher's book.)

Review by Marjorie K. Morray,
INELEC, Algeria

Basic English for Science has as its main goal the development of advanced beginning ESL students' language skills to the point where the learners are able to comprehend and employ the language operations (describing, predicting, hypothesizing, etc.) essential to scientific methodology. The ideal end result is an intermediate-level student who is able to handle a range of basic language operations and to read, write, understand, and express orally numbers, scientific formulas, and numerical values and units.

The text is designed to prepare non-native speakers for careers in all areas of science. Therefore, it cannot present in detail the special vocabulary and terminology associated with each discipline. Instead it focuses on the language operations mentioned above, which are common to all branches of science.

Since the teaching of these language operations rather than language structures is emphasized in the text, the sequence in which grammatical structures are presented is determined by the operation under consideration. Thus, in Unit 1 can be found the verb be, which is used in describing objects; the third-person singular and plural of other verbs; information questions; the passive voice; relative clauses and present participles. These structures are not confined to listening exercises, but are included in oral drills which combine practice in the target structures with scientific reasoning.

Not only are grammatical structures presented at different stages than they are in a conventional ESL/EFL course; some are not included at all, since they are not commonly employed in the language operations dealt with in the course, e.g. for, since, ago.

The first of the language operations introduced is the recognition and use of numbers, isolated and used in dimensions. There follows the description of objects (shape, size, use), angles and lines, position and qualities of materials. Classification, definition and detailed description take up one unit, after which come cause and reason, likely or probable result, reporting actions, describing an experiment and understanding an explanation.

Each unit begins with a three-part presentation and practice session, in which the students' drill structures the content which is based on clear, ample diagrams. Aural-oral activity is reinforced by reading and writing exercises, which are also useful for review as the course progresses. Thereafter, the students are given six drills, two for each classwork section, which require them to produce material presented in their texts in response to prompts on the tapes which accompany the text.

In the oral practice which occupies a large part of the introductory section of each unit, the instructor familiarizes the students with the terminology and structures in the lesson. Although the teacher's guidance is essential, he/she does not dominate the proceedings; there is opportunity for the learners' spontaneous use of English. Questions requiring both oral and written responses are included in the activities which conclude each unit as well as in the classwork, exercises and drills. In these responses, students may employ the language operations presented in relation to their own experience.

Moreover, in each unit there are exercises that can be performed individually while the instructor helps those needing assistance. Thus, the text provides for learner differences.

One of the best features of Basic English for Science is the detailed guidance it provides for the instructor in the Teacher's Book, which is almost as long as the students' text. Not only does it answer questions and problems and explain solutions, but it provides useful suggestions for the methodology to be employed in the presentation of language operations. When teacher-performed experiments are recommended, instructions for setting them up are provided.

Large, clear drawings of the objects and experiments in each lesson are another outstanding feature of the text. As was mentioned above, these illustrations are used in responding to the tapes prepared for each lesson as well as in carrying out the classwork, exercises and drills.

In the first edition of a text, typographical errors inevitably appear. And Basic English for Science has its share. Ordinarily, typos do not result in serious problems for the instructor, but in a text which aims to enable teachers without science backgrounds to teach English for science, these errors can be confusing and at times embarrassing. Furthermore, in certain exercises the information necessary for reading values and formulas is not given. Answers the instructor may need are sometimes omitted. Although the text does not generally assume too much knowledge on the part of the teacher, this is occasionally true. The editors need to correct errors and supply necessary information in order that English teachers without special science preparation may use the book smoothly and accurately.

Another--and minor--quarrel with Basic English for Science springs from the dialogue presented in Unit 8, Drill 5. Only half the dialogue, the second speaker's part, is given in the students' text; the first speaker's lines are omitted. The result is a series of utterances which seem at first glance to have no relationship to each other. Only when the full dialogue is heard on the tape for that drill is their meaning revealed. In order that the dialogue may be used as a coherent whole, it should be included in the students' text in its entirety. Then it could be performed in class by pairs or groups of students with enjoyment and profit.

However, these problems are of small importance in comparison to the positive features of Basic English for Science. It is a well thought-out and planned textbook designed to provide science students with a thorough background in the basic langauge operations essential to their disciplines. And not only students but teachers with a limited background in science will finish the course knowing a great deal more about science than they did at its beginning.

* * * * * * *

EDITOR'S NOTE: The dissertation abstracted below is available through ERIC.

AN INVESTIGATION OF THE FOREIGN LANGUAGE NEEDS OF U.S. CORPORATIONS DOING BUSINESS ABROAD

by Marianne Inman, 1978
University of Texas at Austin

This study has examined the position of language and language training in the international corporate environment, focusing on three aspects of corporate language policies, programs, and perceived requirements:

1) foreign lanaguages for U.S. nationals sent abroad;
2) translation and interpreting; and
3) foreign language (often English for non-U.S. nationals.

Of particular interest were details of the training process and the extent to which Languages for Special Purposes (LSP) research and training are included in corporate-sponsored programs.

Data were collected by means of a detailed twelve-page questionnaire sent to the U.S. headquarters of 267 American companies reported to be doing business abroad. Twenty-eight different categories of company were represented in the sample. Questionnaires were returned by 184 companies, or 68.9 percent of those contacted.

Major findings of the study were the following:

1) The greatest amount of international business in which U.S. coporations are involved is currently being done in Western Europe, followed by Central and South America, Canada, the Middle East, and the Far East.
2) Spanish is the language most studied by U.S. nationals going abroad and also the language most involved in translation and interpreting.
3) U.S. corporations doing business abroad rely primarily on English as the business language and the means of communication.
4) Language training is provided to a majority of U.S. national employees going overseas and outranks technical, cultural, and managerial training in type of training provided.
5) LSP training is only rarely included in U.S. national employees' pre-assignment language instruction.
6) Translation and interpreting requirements are generally handled by corporate employees whose jobs are in a non-language area.
7) English is generally the language in which technical training is given to non-U.S. national employees overseas.
8) A far greater commitment exists to language training for non-U.S. national employees than to U.S. national employees.
9) Language training for non-U.S. national employees is overwhelmingly done in English and is apt to include an LSP (i.e. a job-oriented) component.
10) For most companies doing international business, language training has played no role in the planning of their overseas operations.

A foreign language proficiency, therefore, for U.S. nationals and non-U.S. national alike, is strictly ancillary to an employee's main job and essentially serves only to enhance his other skills and capabilities. As a result, foreign language educators at all levels have begun to advocate and introduce non-traditional, interdisciplinary courses and curricula.

CONFERENCE NOTES

Those attending the 1979 CATESOL Conference in Los Angeles April 6-8 will have the opportunity to hear a presentation on EST by Louis Trimble and Mary Todd Trimble. They will also be able to obtain information on the 1979 EST Teacher Training Institute from Stephen Hanchey of the Experiment in International Living.

The T.E.A.L. Conference in Vancouver B.C. March 16-17 will include a Saturday morning presentation "Resources in EST' by Karl Drobnic and Michael Witbeck.

Those giving conference presentations who would like to draw on Clearinghouse resources for handouts are invited to write for Clearinghouse information packets. Please state the anticipated size of your audience. A limited number of back issues of the Newsletter can be included in the packets.

AGENDA

EST CLEARINGHOUSE MEETING

TESOL CONVENTION, BOSTON

- **PLACE:** Sheraton Hotel, Room Hampton A1B
- **DATE:** Wednesday, February 28, 1979
- **TIME:** Immediately following Bernard Spolsky's Opening Address. The Opening Address begins at 7:30 pm.
- **SPEAKER:** William Longenecker. Brief remarks to open the 1979 EST Clearinghouse Meeting.
- **REPORT EST CLEARINGHOUSE:** Karl Drobnic. A short summary of the current operations and projects of the EST Clearinghouse.
- **OPEN DISCUSSION:** Topics

1. New objectives for the EST Clearinghouse: The Clearinghouse was established two years ago to meet the following four objectives:

   Collect research in EST.

   Solicit descriptions of EST teaching methods.

   Publicize the importance of EST within the discipline of ESL.

   Serve as a resource distribution center.

   These objectives have been met. The floor will be open to discuss new objectives for the Clearinghouse.

2. EST Newsletter: Themes for Year 3, and Other Newsletter Concerns. Areas the readership would like to see Year 3 of the Newsletter explore will be discussed. Suggestions for special issues, and offers to guest edit them, will be entertained.

3. 1979 EST Teacher Training Institute: Open discussion time for questions and suggestions for the 1979 Institute, with a chance to meet and talk with both 1978 and 1979 faculty and staff, along with several 1978 participants.

4. Meet your colleagues: The meeting will adjourn into mixing, meeting, and socializing.

1979 EST TEACHER TRAINING INSTITUTE

30 July-24 August, 1979
Corvallis, Oregon

FACULTY

John Lackstrom/Curriculum Coordinator
Utah State University
Louis Trimble/University of Washington
John Swales/University of Aston
Mary Todd Trimble/University of Washington
Stephen Hanchey/Experiment in Int'l Living
Karl Drobnic/Oregon State University

The EST Clearinghouse is pleased to announce the second EST Teacher Training Institute, an intensive four weeks of both theory and practice in the techniques and methods of one of the major contemporary movements of English language teaching. The 1979 faculty has been expanded and represents a unique blend of British and American thought and experience. Each faculty member is a practicing teacher in additon to bringing to the Institute expertise in such diverse aspects of the profession as linguistic theory, materials & textbook preparation, course design, and program administration.

Of special note is the EST Forum, a series of presentations by participants, guest speakers, and other resource persons that proved to be one of the most popular features of the 1978 Institute. Those of you attending the 1979 Institute will have the opportunity to share with the staff and participants your own work in the field to both enrich the Institute and add to the body of knowledge within the discipline.

PROGRAM PLAN

The curriculum has been divided into two categories, courses and opportunities, in order to provide the greatest flexibility and personalized response to the needs and interests of the participants. In addition, participants will have the opportunity to earn five graduate credits as an option. Tuition includes all of the below.

1. COURSES

Rhetorical, Grammatical & Lexical Analysis
(Louis Trimble)

A course investigating the characterization of some of the principle rhetorical and linguistic elements of written EST.

Materials and Textbook Preparation
(John Swales)

A course covering the writing of EST materials from a gathering of a corpus to the preparing of the final draft.

EST Methodology & Course Design
(John Lackstrom)

The planning of course objectives and activities for EST will be explored.

EST Textbook Analysis
(Mary Todd Trimble)

Reviews of textbooks, adaptation, supplementation, and testing of materials.

EST Curriculum, Program Design & Administration
(Drobnic, Hanchey)

From the director's point of view--assessing client needs, impact assessments, preparing proposals and budgets, and day-to-day administrative concerns in EST programs.

2. OPPORTUNITIES

The EST Forum

One of the most popular aspects of the 1978 Institute, the EST Forum is participatory in nature & provides opportunity for special presentations by participants, guest speakers, and other resource persons.

Project Advising

Participants with well-defined research or development projects will be assigned an appropriate faculty resource person as an advisor.

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On-going language classes with an EST focus at Oregon State will be open for observation. Where appropriate, participants may arrange to teach segments of EST courses.

Tuition: US $600.
Tuition covers all of the courses offered in the Program Plan and as many of the opportunities as the individual opts for. It includes a substantial packet of EST materials, including most of the holdings of the EST Clearinghouse and one copy of the textbook ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY. Use of a specially arranged typing lounge/EST library, with electric typewriters, technical textbooks, scientific magazines, & ESP/EST texts is also included.

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ENGLISH FOR SCIENCE & TECHNOLOGY

OREGON STATE UNIVERSITY - EXPERIMENT IN INTERNATIONAL LIVING

1979 EST TEACHER TRAINING INSTITUTE

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CORVALLIS, OREGON

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Ed. Note: We will return to our regular printed format next month. This issue used an alternate printing process in order to out in time for TESOL Boston.

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ISSUE 24
MARCH, 1979

«SPECIAL ISSUE»

english for science and technology

«GUEST EDITORS»
SHARON ABRAMS / MARJORIE MORRAY
INELEC, Algeria

KARL DROBNIC, EDITOR
ELI ADS A100

OREGON STATE UNIVERSITY
CORVALLIS, OREGON

A SERVICE OF THE ELI, OREGON STATE UNIVERSITY; INITIALLY SPONSORED BY AID/NAFSA LIAISON COMMITTEE

FROM THE EDITOR The Newsletter's third special issue is from the staff of INELEC in Boumerdes, Algeria, a group of innovative and remarkably active language instructors very much involved in EST.
-- Karl Drobnic

INTRODUCTION TO THE INELEC ISSUE OF THE EST NEWSLETTER

by Sharon Abrams

This month's issue of the Clearinghouse Newsletter contains articles on the teaching of English for Science and Technology written by faculty of the English Language Program of INELEC in Boumerdes, Algeria. The acronym INELEC stands for the Institut National d'Electricite et d'Electronique. The program is funded by the Algerian government and is implemented by Education Development Center (EDC) of Newton, Massachusetts, in conjunction with a number of universities which participate in a consortium headed by a Steering Committee.

The Institute began in March 1976 with approximately 150 students and 15 English faculty members. At the present time, there are 288 students and 25 English staff members, and there are plans for a much enlarged institute situated in Tlemcen, Algeria, in the near future.

The students, at present nearly all male, are enrolled in one of three programs: the technology program, the engineering program, or the Faculty Candidate program. The Faculty Candidates are students who will go to the U.S. for a degree, generally an M.A. either in TEFL or in some aspect of Electronics, and who will return to INELEC as faculty members. They are numerically by far the minority of INELEC students.

The role of the English Program, then, is to prepare regular students for study in technical and engineering courses in English, and to prepare the Faculty Candidates for studies in the States. Time allotted to the study of English is limited, and so the students must be taught as quickly as possible. In general, their first semester is mostly intensive English, which tapers off quickly after that. At present the Engineers have 30 hours of English in the first semester, 10 in the second, 8 in the third, and 5 in the fourth. The Technicians have a 25-15-5 program, and the Faculty Candidates have one semester of 30 hours of English per week.

Given the nature of the INELEC curriculum, the English Language Program must introduce English for Science and Technology, with specialization in "Electrical English," as it were, as early as possible. Textbooks for science and technology, especially those that emphasize electronics, are much in use, as are technically oriented tapes, videotapes, filmloops and films. Special "modules" for teaching preparatory English for math and for electricity have already been developed and printed. At the same time that materials are being carefully selected, adapted, and developed, experimentation with the presentation of curriculum is underway. At present this experimentation includes a project in which the second-semester technology students are divided into two groups with the course content emphasizing general English as a Foreign Language in one and English for Science and Technology in the other. Results of the experiment will be measured in a battery of tests to be administered in January.

The INELEC English Program is directed by Dr. Marjorie Morray of Oregon State University, who is aided in the organization of the office and in the development of materials by a full-time secretary and a full-time illustrator/language lab assistant. The 25 English teachers are largely MA's in TEFL or linguistics, well-traveled and experienced in teaching EFL/ESP/EST. At present, EDC, represented by Dr. Lin Lougheed, implements the program by hiring the director and the staff, and furthurs it in a number of ways, e.g., searching for appropriate materials, publishing EFL/EST materials developed on site, sending teachers to conferences such as the August, 1978, EST Teacher Training Institute at Oregon State University, and locating appropriate M.A. programs for the Faculty Candidates to attend. EDC performs a similar function for the Plastics program of IAP, the Algerian Institute of Petroleum. It should be noted that certain sets of materials developed at INELEC are available through EDC for use by other programs.

PRACTICAL COURSE EXPECTATIONS: FOCUS ON INELEC TECHNICAL FACULTY CANDIDATES

by Barbara Killefer

"Technical Faculty Candidates" are Algerian nationals who have met the criteria of obtaining either a University degree in a science/math or a NTS, which is a technical degree that is deemed of lower quality than the University degree. In addition, the male candidates have done their national service in the form of military service. A further requirement is the passage of a battery of proficiency tests in mathematics, physics, and psychological aptitude for logical, systematic thinking. Language testing is not an entry requirement, but upon acceptance into the program the students are given the Michigan Placement Examination to determine their ability level.

The students range in age and experience from those just completing their military experience directly after obtaining their degree to those who have also acquired experience in Algerian industry. Therefore, ages and marital status are variable. As for the language proficiency of the students, the class can range from total beginners to high intermediates, and the class is divided into differing levels only if the number of entering candidates allows.

The Technical Faculty Candidates program is designed to provide a three month preparatory course in English language, American culture, and professional orientation for the program participants. These class members agree to participate in this preparatory course at INELEC (on temporary site in Boumerdes, Algeria) before they are sent to the United States to enter various Bachelor and Masters degree programs in technical subject areas. The cost of the entire program is sponsored by INELEC and thus, the Algerian government through the Ministry of Heavy Industry. On completion of the degrees the participants return to INELEC as teachers on an obligatory four year contract. Educational theory and techniques are introduced by special workshops in the United States, and additional assistance by the INELEC field staff provides "teacher-role" orientation for the returned students. Within this context we can identify three levels of program perception and expectation:

1. The INELEC administration (the Algerian government) sees the three-month Boumerdes phase as providing skills in English competence towards attaining levels acceptable to entrance to American Universities. (Though they allow for continued English language training in the States when required.) They also see the program as an introduction to the INELEC context and whatever professional orientation is implied by that context.

2. The students in the program are aware that for entrance into the universities they must achieve specific test scores on the TOEFL and Michigan Placement; therefore, they perceive the course in terms of language acquisition and acquisition of information about their future academic destinations.

3. The teachers in the program perceive the task as multi-goaled. They must provide an adequate amount of English language material to promote passage of the examinations. In addition, they must prepare the students for the context of the American classroom and all that that entails for the students: e.g. familiarity with technical materials in various forms (textbooks, journals, lectures, and the vocabulary and discourse implied therein); the interaction of the American student in the classroom (participation in discussion, hands-on experimentation); and the kinds of work production expected of them (report and paper writing as well as the quantity of reading assigned). Furthermore, the teachers of the program prepare the students to analyze and participate in the INELEC context. Generally speaking this means assigning class observations and informing about the goals of the Institute in educating electrical-electronic technicians and engineers.

Essentially then, the evaluation and performance expectations for all three interest groups is successful entry into an English speaking University, successful completion of the academic requirements of that institution in the designated field, and successful re-integration to INELEC coupled with promotion of the goals of the school.

The materials used for the course are EFL, EST, and cultural from English language teaching texts, authentic materials, study skill developing texts, and teacher developed handouts.

CURRENT EST RESEARCH AT INELEC

by George Scholz

English for Science and Technology (EST) is a commerical arm of today's ELT. Beyond this point, however, one finds controversy as to the nature of EST itself, ranging from EST as a separate linguistic entity (Warner's "scientific literacy") to merely regular English with a specialized lexis. There is the science vs. language controversy in EST as to whether a language instructor needs to teach scientific concepts as well, if he is to teach EST in any meaningful, contextual way. Thirdly there is a question as to the point at which EST should be introduced in a language program, from the beginning of the student's ELT training or later on. Given also the state of the art of linguistics in general and ELT in particular, the answers, if any, to the problem and nature of EST are difficult to ascertain.

Although there is an abundance of material concerning the coursework, curricula, discourse, learner needs, objectives, and syntax of EST, there remains a paucity of information relating to the evaluation and measurement of a learner in EST. The triumvirate of any functioning curriculum, the teaching, learning and testing, do not operate in isolation but rather in coordination. "Formal testing may provide feedback on teaching and learning." (Croft, 1972:305) To determine an entering student's ability, there is a placement test. Diagnostic and achievement tests, hinged to a syllabus and subsequent instruction, help the classroom instructor to evaluate the success of what has been taught (achievement) and what needs to be covered (diagnostic). Tests which attempt to evaluate a learner's overall knowledge of a language, his ability to use it creatively and successfully in a multitude of contexts, are proficiency tests.

If a language program adopts the philosophy, curriculum and goals of EST, then the evaluation and measurement must also operate in the same mode. This applies to both instructional (placement, achievement and diagnostic) and proficiency testing. Evaluating an EST curriculum with EFL/ESL criteria is analogous to gauging transcendental contentment by the size of a bank account. The preceding, of course, accepts the frequently held opinion that EST and EFL/ESL are distant, if not mutually exclusive: EST may only be introduced after a substantial amount of the basics of EFL/ESL.

In addressing the questions raised by EST, one research tool available is proficiency testing. Assuming that learner needs and goals are similar, if not identical, in a language program such as INELEC, the situation necessitates the incorporation of EST into the curriculum at as early a level of language instruction as possible. At what point should the learner be exposed to EST? Further, could tests using an EST context be developed at early levels of second/foreign language learning? How much statistical difference (in terms of variance of test scores) is there between tests using EFL and EST contexts? Do proficiency tests based on EST context measure general language proficiency? Assuming that language is a necessary (though not sufficient) element for a learner's success in his technical work, which context would serve as an indicator, i.e. predict success in the technical?

In an attempt to answer these questions, 50 INELEC students who had completed a 16-week intensive semester of general English were administered a battery of EFL and EST proficiency tests involving both discrete-point (multiple-choice) and integrative (cloze and dictation) formats. It should be noted that the intensive semester consisted of approximately 80 hours of the English of mathematics, 80 hours of technical instruction and 320 hours of intensive ELT. All results were correlated and factor analyzed.

It was found that the tests of general English and EST correlated at .88 (.001 significance), indicating that context did not make a difference in a student's ranking in English. Further, a factor analysis revealed all tests to "load" on only one factor, showing similarity of all tests (regardless of context used, format employed or skill tested) in that they evaluated general or global language proficiency. A semester later, the same group of students were administered another multiple-choice proficiency test. Moreover, their scores for technical subjects were collected. By means of regression analysis, it was found that the EFL proficiency tests were better predictors of a student's future performance in EFL work. As for predictions of future technical performance, proficiency tests containing EST contexts served as generally better predictors than the EFL tests.

In interpreting the results, it appears that:

1. students may be introduced to EST much earlier than previously thought,
2. the use of either an EFL or EST context will yield similar rank ordering of students in a foreign language program,
3. proficiency tests using an EST context are similar to EFL proficiency tests in that they assess global language proficiency,
4. proficiency tests using an EST context are generally better indicators of a learner's future performance.

Needless to say, more research is needed in the field of EST. This is true not only in terms of testing, but also in the classroom. A current research project at INELEC is being conducted by the English Department to determine which contextual focus in the classroom (EST or EFL) will best assist the learner in his technical work. To investigate this question, 45 INELEC technicians have been divided into two groups. One group is being taught EST with the use of both commercially available and teacher-produced material, while the other is being instructed in EFL. Pre- and post-tests will be conducted to determine which teaching/learning situation best helps the learner in his technical coursework and overall English language proficiency.

It is hoped that INELEC will help to contribute further discussion and research in English for Science and Technology, resulting in an expanded perspective on this relatively new field.

NOTE:

The author wishes to thank the Center for English as a Second Language at Southern Illinois University and the English Language Institute at Oregon State University for the computer time made available.

Croft, Kenneth (ed.) 1972. Readings on English as a Second Language. Winthrop Publishers, Inc., Cambridge, Mass.

ADAPTATION OF EST MATERIAL

by Celeste M. Scholz

The teaching of English for specific or Academic Purposes (ESP/EAP) places a great deal of responsibility on the teacher to provide material which is relevant to the specific needs of the students. On occasion, the teacher can find an English teaching text that meets these requirements, but usually this is not true. In such cases, the teacher is required to write or adapt material that is tailor-made. In any situation, the teacher will be obligated to provide 'authentic' language material, i.e. material from the discipline in which the student is involved, and material that uses the discourse of the student's discipline. As Widdowson states, many teachers are concerned only that the 'authentic' material is thematically scientific, "but data which is rhetorically inappropriate is just as 'inauthentic' as that which is thematically irrelevant." (Widdowson: 1976)

At INELEC, the student's discipline is electricity and electronics at the general level, but more specifically he is concerned with Advanced Mathematics and Calculus, Physics, DC Circuitry, Technical and Electronic Drawing, Sheet Metal, etc. In other words, his discipline involves the specific technical courses in which he is enrolled. The discourse the students are primarily engaged in is the discourse of science learning, or that which is found in scientific textbooks. Secondarily, the students may have occasional contact at advanced levels of study with the discourse of scientific research (engineering students) and technical manuals (technology students).

Source Material. With these two criteria in mind, material concentrating on the skills of reading and writing was developed for the second semester technicians (TO 2). It was taken from two sources: Resistive and Reactive Circuits by Malvino (New York: McGraw-Hill), the textbook the students were using at the same time in their DC Circuit course, and The Way Things Work: Volume One (New York: Simon and Schuster), an illustrated collection of technical descriptions of mechanical objects, including information on their structure and performance.

The Resistive and Reactive Circuits book was chosen for two reasons. It had the most discourse of the three texts the students were using, the other two books being Technical Math and Technical Drawing. Secondly, the book was written for American college freshmen and at a reading level much higher than that of the TO 2 students, who had previously completed one semester of intensive English. As a result, they did not, for the most part, attempt to read the book and had to rely completely on class lectures for the material. Furthermore, the material used from the Malvino book was presented in English class after the same material was discussed and tested in the DC Circuit course. The reason for this was to eliminate the actual teaching of the technical material in the English class, which would lead to serious problems for the teacher and students as well. It also encouraged the students to try to read the book on their own, following the DC Circuit course.

On the other hand, The Way Things Work, an illustrated encyclopedia of technology, was chosen because it treats the subject matter of technology, including more specifically, electrical and electronic technology. Although the encyclopedia was written for the layman, the reading level was a challenge for the TO 2 students, but not excessively difficult. Its descriptions were technically detailed and covered "the simplest mechanical function of modern life to the most basic scientific principles and complex industrial processes that affect our well-being." (cf. Forward) The topic range was expansive, treating devices like the electromagnet, light bulb and lightning rod to the TV picture tube, electric iron and thermostat. However, no matter which description was concentrated on, they all paralleled the discourse of science teaching that the students were encountering in their other technical textbooks, especially in the DC Circuits book. Thus, The Way Things Work met Widdowson's criteria of material which was both thematically scientific and rhetorically appropriate.

Language Practice. The Malvino book provided material for many types of English language exercises, a few of which will be explained in more detail. To aid the students in note-taking, the instructors asked them to identify and write the definition of terms in portions of the reading. They were also required to note the verbal realizations written in the text of the mathematical equations, something which Malvino does frequently. The students then read the equations orally, using the words from the book without referring back to them. Another variation of this technique was used to focus on the use of diagrams. A diagram was taken from the book and the students explained it, reading the explanation from the text. The same explanation was practiced orally (or in writing) on a diagram, altered by a change of numerical values, again with less dependence on the written text. In addition, the students were guided to the main points of each reading section by answering the questions with which these sections began. These techniques and others seemed to provide valuable language practice, although it was best to treat only the specific information given in the text, thereby eliminating difficult technical questions and focusing only on the reading itself. This seems to be one of the constraints of EST teaching.

The language exercises based on The Way Things Work concentrated on various language skills and discourse types that are part of the total discourse of science learning. These types can, in fact, be found in the Malvino book and vice versa, but it was easier to develop language exercises practicing certain discourse forms from one source rather than two.

Some of the exercises written, include the following: The students were given a paraphrased paragraph based on the reading which provided additional context for the difficult words, so that they could guess the meaning of the words from the context. This aided them later when they read the more difficult reading. From the reading, they attempted to draw a diagram of the device, or label a diagram given to them. A dictionary exercise was then developed for words that were not essential for basic understanding of the passage, but helped give a more complete knowledge of the subject. The exercise required the student's choice of the appropriate definition from the dictionary of a word cited in a sentence from the reading. Then, several writing exercises were provided, both guided and free. One of them asked the student to give the correct chronological order of misordered sentences and then use them in a paragraph of process, adding the necessary connectors. Another practiced the student's ability to write a description through a partitioning of the device. Still another focused on a description of the structure of two models of the same device by comparing and contrasting them.

These language practice exercises seemed to complement those based on the Malvino book, in that they developed other skills and utilized other discourse types. The description of the devices in *The Way Things Work* is generally self-contained, and if not, the page which describes the related object or process is listed. This reduces dependence on previous material and permits reading about a device of special interest to the students.

These EST materials provided language practice for the second semester technicians, allowing them to develop and increase their proficiency in the scientific discourse they were exposed to every day in their technical courses. The criteria set out by Widdowson were met, as well as the special needs of the TO 2 students in their ESP/EAP setting. In addition, the larger demands of the current trends of adult language learning were also considered, resulting in the integration of skill areas toward the goal of increasing communicative competence.

Malvino, Albert P. 1974. *Resistive and Reactive Circuits*. New York, McGraw-Hill.

The Way Things Work: Volume One. 1967. New York, Simon & Schuster.

Widdowson, H.G. 1967. "The Authenticity of Language Data", in J.F. Fanselow and R. H. Crymes, eds., *On Tesol '76*. Washington, D.C. TESOL, p.266.

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SUGGESTIONS FOR VTR LESSONS IN EST

by Adele G. Hansen

English teachers are always searching for a way to bring "the real world" into the language classroom. The videotape recorder offers one method of doing this. A videotaped lesson may take many forms. At Boumerdes we have incorporated a reading lesson into our videotaped lesson with successful results and we would like to share our idea with other EST teachers.

Our approach to the VTR lesson begins with our choice of subject matter. We go to the textbooks which our students are using in their technical studies and select a topic. This topic may be class-specific (such as an explanation of an electrical theory) or general-technical (such as a discussion of safety in the shop area). Next, we approach a member of our technical faculty and ask him to prepare a 10 to 15 minute presentation on the topic. We suggest that he define several terms in the course of his presentation. Meanwhile, we look for a reading passage to supplement the taped lecture. This may be an excerpt from the student's text, a passage suggested by the technical instructor, or a passage from an EST reader.

After the actual taping is completed, the English teacher makes a tape recording from the videotape. This master-tape can then be used to type a script. In written form, the teacher can easily isolate unfamiliar vocabulary items, locate any definitions given in the discussion, locate special explanations and search for information which will be the basis of comprehension questions. She/he can also look for a particular grammar structure which may reappear throughout the presentation and which may be the focus of a grammar segment in the lesson.

Then the general lesson is written. It is important to note that we are not presenting new material to our students. They have some degree of familiarity with the subject matter. We are merely exploring the linguistic aspects of the technical rhetoric. Because of this, all unfamiliar vocabulary which is not defined during the course of the presentation is pre-taught to the students. They are also given a brief introduction to the lesson and a series of questions to which they are asked to find the answers. We try to confine these questions to general definitions and the main points of the lesson.

After the first showing of the videotape, the the students are asked to complete definitions, write the main points of the discussion, and answer general true-false questions. Next, we ask them to look for more specific information (labelled diagrams, specific examples used by the lecturer, etc.) and replay the tape. At its conclusion, the students are asked more specific comprehension questions. These questions provide an excellent opportunity to test the understanding of both the vocabulary and the content of the lecture. We also include a sentence completion exercise; this may focus on a special grammar pattern. Finally, we play the tape again and let the students correct their work.

The next part of the lesson focuses on the supplemental reading passage. Students are pretaught 60% of the unfamiliar vocabulary; other new words are defined by using special context clues (see J.R. Cowan's discussion of such a reading lesson in TESOL Studies, U.of Ill., 1975). Students read the passage and answer comprehension questions about it. Sentence completion exercises are also used. Sentences are extracted from the text and students are asked to perform various grammatical transformations (singular to plural nouns, present to past tense) or add special words (adjectives, articles, etc.). Vocabulary items are reinforced by spelling exercises similar to those found in Mary Lawrence's Reading, Thinking, Writing. Next, the students are given a combined list of vocabulary items from the VTR and the reading lessons and are asked to use those words in a sentence "of their own words".

The final portion of the lesson consists of a CLOZE passage. We have used both an excerpt from the VTR lesson tapescript and the reading passage as a basis for our CLOZE passage. We find that our students are able to complete a high percentage of the blanks with the exact missing words. We believe this shows that they comprehend the material.

A typical "package" lesson (VTR and reading) lasts five hours. These hours, in our opinion, are well spent.

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THE SCIENCE FILM IN THE ENGLISH CLASSROOM

by Barbara Brock

How can teachers bridge the gap between students who understand basic scientific concepts but cannot express themselves adequately in English, and the English teacher who lacks a scientific background? One valuable device is the science film which proves to be an exciting medium that helps both students and teachers join in an effort to learn scientific English. Following are some techniques that I have been developing with second semester INELEC Engineering students.

1. LISTENING COMPREHENSION: a) Tape the soundtrack of the film. b) Play it back as the students take notes. c) Give them a listening comprehension test. LIMITATIONS: This technique is effective only if th [illegible] ehension questions can be answered wit [illegible] students' viewing the film first.

2. VOCABULARY DEVELOPMENT: a) Tape the soundtrack of the film and transcribe it as a filmscript for the students. b) Distribute the filmscript. c) Have the students read along as they listen to the taped soundtrack, circling the words they do not understand. d) Have the class tell you which words they did not understand, but do not give them the definitions. e) Show the film and tell the class to listen for the unfamiliar words. f) After viewing the film tell them to draw a line through the words they now understand. Discuss the remaining words. This technique encourages the students to figure out the definitions and contextual meanings themselves. g) Show the film a second time. h) Give them a vocabulary test.

3. CLOZE PROCEDURE: Give the students a summary of the film in the form of a cloze procedure. Here are two ways to do this. The first way is: a) Give the cloze test before the class sees the film. b) Show the film. c) Go over the cloze test. Grade it for exact words and acceptable words (you will have two scores). Going over the cloze test is extremely beneficial because it tests not only vocabulary, but structure as well. Discuss with the class parts of speech, subject-verb agreement, and contextual vocabulary. A good discussion can contribute to a thorough analysis of language. d) Show the film a second time. e) Give the same cloze test again. Administering the test again allows the students an opportunity to improve their first scores.

   The second way is to show the film before giving the cloze summary. Repeat the above steps. These approaches should be combined with the method of vocabulary development outlined above.

Using the science film as a vehicle for teaching language has proved very effective in my English classes. The students practice listening comprehension, oral production and vocabulary development. The techniques previously described for improving vocabulary build the students' confidence in their ability to learn English on their own. Furthermore, the English teacher learns his/her science facts as the students improve their English. The atmosphere in the classroom is exciting and stimulating because everyone, including the teacher, is continuing to grow.

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THE ENGLISH OF MATHEMATICS

by David Van Hammen

One need shared by all students who wish to pursue a course of scientific study in the English language is knowledge of how mathematics is described in English. If a student is to pursue a course in advanced mathematics he should first be exposed to the English vocabulary and structures used in the mathematical operations which he has learned in his native language. Even if a student has no further need to study mathematics, if he is a student of science or technology, mathematics, will be used in most of his courses and therefore, he will need to know the English of mathematics.

To meet this need at INELEC, students of both engineering and technology attend a course called "The English of Mathematics". The class meets for one hour each day during the first semester. This essay will be a brief history and description of that course.

"The English of Mathematics" has evolved over the past two years as a joint effort of several teachers at INELEC. At its inception, the course (then called the "Math Module") was designed not only to teach English but also as a remedial math course. Consequently, the units are presented in a correct mathematical order as well as in a logical sequence of language structure. The math topics covered by the course range from simple arithmetic through algebra, geometry and trigonometry.

As the new students now entering INELEC are more mathematically sophisticated, the primary objective of the course as it is currently conceived is to teach English, with an inevitable secondary objective of providing a review of mathematics.

Typical problems faced by INELEC students include learning the names of the numbers ("Did I say 'sixty' or 'sixteen'?") and learning to use decimal points where their native system uses commas and vice versa. They also learn to "read" a mathematical expression in English. Word problems are used extensively in the course as well. These challenge the students to choose the correct operations to solve the problems and provide immediate verification of the students' comprehension.

Since "The English of Mathematics" is taught in the first semester, it is important that the English structures used correlate closely with those being taught in other classes. Numbers and mathematical operations provide situations in which almost any structure can be reinforced and all four skills exercised. It is also worth noting that for technically minded students, studying English through mathematics is highly motivating.

Materials used in the course include a workbook designed by the course instructors, flashcards with mathematical statements and problems, Algebricks ("Silent Way" rods) and various measuring instruments. Also, as soon as the students are ready, they are given word problems from a variety of math texts.

As with any ESP course, it is helpful for the instructor to have a basic knowledge of the subject area; however, a specialized knowledge of math is not necessary since the course is designed to teach English.

* * * * * * * * *

EDITOR'S NOTE: The INELEC program mirrors one of the prototypical trends of the technology transfer movement which has been a driving force behind the growth of ESP. SONELEC, the Algerian sponsor of INELEC, has contracted with Education Development Center (EDC) to staff the program with American expertise. EDC is essentially a management group providing INELEC with EST as one part of a total package.

EDC itself is a publicly supported nonprofit corporation engaged in educational research, development, and dissemination both in the U.S. and developing countries abroad. It has completed many education projects of long and short duration and currently administers between 30 and 40 projects out of its headquarters in Newton, Massachusetts.

EDC, and similar management groups, provide the context which has nurtured needs-based language teaching both in English Language speaking countries and in developing nations. Whatever the setting of the language program, the management groups have a responsibility to insure the relevancy of the language teaching to the larger picture--the specific aims of the sponsoring agency with whom they have contracted. A management group, then, often views langguage teaching as only a small, albeit pivotal, component of a total program.

In the case of EDC, INELEC is one program among accomplishments that include 16 major curriculum programs and 700 films, training and advisory services provided to thousands of teachers, schools, and community agencies, the creation of schools and universities in other countries, and a nationally acclaimed television series.

To provide the milieu in which EST has flourished these managers of technology transfer bring together people of varied academic and professional expertise, as in the example of INELEC. For this project, EDC organized a consortium that includes representatives of eight American institutions as well as recruiting personnel for language teaching.

Projects such as INELEC may originate within or outside of a management group such as EDC, sometimes growing out of an existing project; at other times through providing educators with assistance in shaping their ideas and submitting proposals to appropriate institutions.

Viewed from this perspective, ESP/EST can be seen as a service-oriented discipline that is developing techniques and methodologies more immediately responsive to specific goals and objectives.

year three—*subscription renewal...

For our Year 2 subscribers, this is a reminder that subscriptions are now up for renewal. If your address will remain the same, please leave the address section below blank. Year 3 subscriptions cover the period April 1979 to March 1980; prices per below. Mid-year subscriptions are back-filled to Issue 25 (April, 1979).

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KARL DROBNIC, EDITOR
LYNNE STINNETT, PRODUCTION
(503) 754-3006

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OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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ISSUE #25
APRIL, 1979

English for Specific Purposes

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FROM THE EDITOR:

1979 EST Clearinghouse Meeting

The most obvious result of the 1979 EST Clearinghouse meeting at TESOL Boston is carried on the masthead above. The name change to ENGLISH FOR SPECIFIC PURPOSES NEWSLETTER received broad support from the more than 100 people who attended. It was felt that the EST title narrowed the audience of the Newsletter; this in turn limits the information submitted to the Newsletter. We thus launch Year 3 intending to have a wider angle in our coverage.

A question raised was whether a change in name and focus would put the Newsletter into competition with other journals. The answer was that the monthly format of the Newsletter makes it fundamentally different from a journal; the purpose of the Newsletter is to provide a continuing flow of information that reflects as immediately as possible the work people are doing.

It was the concensus of the meeting that the objectives with which the EST Clearinghouse was started should be continued. An additional objective was formulated for Year 3, that being to pay particular attention to the increasing activity in vocational ESL (VESL), the name that seems to be gaining dominance over English for Occupational Purposes (EOP). Accordingly, the feature article this issue is on technical English, American style.

This not only responds to the great interest at the meeting shown in VESL; it responds also to the comment made that so much of the coverage in ESP reflects British origins.

It should be noted that only a few people at the meeting had substantial information about VESL, and it was suggested that this was because most people working in VESL programs find funding to attend TESOL-type conferences difficult to come by. They are members of other spheres of influence, funding, and professional organizations. It was also pointed out that the EST Clearinghouse has made overt efforts to contact VESL programs in the past and received minimal response.

Several people subsequently promised articles on VESL and a special issue of the Newsletter was advanced as a way to profile the subject. I am currently hoping to arrange two specials, one featuring British work in the area, the other North American, and I'm presently in need of a well-connected North American to guest edit the N.A. special issue. I hope also that the articles promised at TESOL on the subject will materialize, and I will keep space open in each issue for VESL.

Another special issue resulting from the TESOL meeting and in the planning stages will feature English for Business and Economics. A fourth special issue is in the exploratory stage. Suggestions for special issues are always welcome. Even more welcome are offers to guest edit them. Details vary according to the theme, but write if interested.

A concern voiced at the meeting was that it is still not clear where programs in ESP/T exist, how much hands on work is being done, who is doing it, and how viable it is. In response to this, the Newsletter is cooperating with John Dermody and English Language Services in conducting a survey. The survey will be carried out through the Newsletter. Our first step will be to query the readership concerning what sort of items they would like us to include on the survey form. As a survey is only as good as the response it gets, we should be most grateful if all of you would, now or in the next half hour, write 1979 EST Survey on a piece of paper and then mail it to the Clearinghouse with the answer to the following question:

> "What item(s) would you most like to see included on the survey?"

Be as taciturn or verbose as suits your style.

Another issue raised was that of forming an ESP Special Interest Group (SIG) within TESOL. Bill Robinson of Kuwait spoke eloquently in favor of forming such a SIG; I pointed out that the resolution to establish an ESP SIG at TESOL Mexico last year had been overwhelmingly defeated.

It was at one point suggested that ESP form its own organization separate from TESOL, others argued in favor of working within the already established SIGS. The Newsletter is committed to exploring the alternatives during the next several months and offering its organizational framework to serve the course of action that emerges as most viable. Comments from the readership are and will be invited on this issue.

Another change in the Newsletter discussed at the meeting is the inclusion of advertising in the Newsletter. It was pointed out that AID/NAFSA had granted funds to found the Newsletter and that Oregon State had served as guarantor the second year. Comment was generally in favor of including advertising. A reservation was voiced that this could influence the content of the Newsletter. It was then left to the discretion of the editor as to whether to include advertising. Advertising is now included and guidelines are availalbe by writing the editor.

Discussion on the 1979 EST Teacher Training Institute centered mainly on the length of the Institute. It was stated that it was difficult to get release time from home institutions for four weeks. John Lackstrom, Curriculum Coordinator for the 1979 Institute pointed out that four weeks is, if anything, a very short amount of time to do justice to all that needs to be covered in a professional institute. I pointed out that the benefits devolving to institutions that participated last year seem to have far exceeded the four weeks release time granted, and that this was reflected by the number of papers published and conference presentations given around the globe since last August by the 1978 participants. This included presentations at TESOL Boston by six people involved in last year's Institute.

The meeting was long and lasted late; I thank all those who endured for their comments and suggestions. On behalf of us all I thank Deirdre Bird of the University of Minnesota for acting as recorder. Her detailed notes are the basis of this report.

* * *

WHAT IS TECHNICAL ENGLISH, AMERICAN STYLE?

Diana May Sims,
Tarrant County Junior College

Introduction

At the 1978 annual meeting of the American Dialect Society, my paper describing American technical English, from which this article comes, preceded a paper on baby talk and followed one on legal language. While all three topics concern varieties of American English, the sequence seemed especially apropos for a reason I would like to develop: technical English involves highly technical content, conceptually and sometimes terminologically. In this respect it is like legalese. Yet in rhetorical approach, good technical English has a simplicity which permits communication between its writers or speakers and, perhaps like babies, an unsophisticated audience of readers or listeners.

I have used the phrase "good technical English" because I do not want to delimit the analysis of technical English, American style, to a purely descriptive approach. That is, I do not report merely a collection of findings from an examination of extant materials such as textbooks, technical manuals, reports, and documents. The reason is that some of these materials are not necessarily communicating with or successfully teaching interested lay readers and listeners. I concentrate instead on technical English which does communicate and teach. Surely this judgmental approach is a valid way to study varieties of American English because we look not only at their characteristics but also at their roles.

If, then, we are selective in describing technical English as a variety of American language, the following problem arises. Until the nature of technical English is concretely specified in ways which students can replicate, effective instruction in it may be illusive. In connection with this problem, the purpose of my research and report is to show that linguistics, especially dialectology, can furnish the precision and objectivity for delineating technical English as one variety among present-day American dialects.

In doing so, I need first to mention the meanings generally of the terms technical, technical English, and American technical English. In lectures on "What Technical English is About," Jerome C. Ford, Professor of Technical English at a Mali university, suggests that the term technical describes any professional field which is experiencing a rapid degree of development for the first time in this century (1974:2). When technical refers to a variety of English, Ford proposes that we can define this variety best by opposing it to forms of everyday English, scientific English, or special English. His lectures cite examples of each of these types of English and compare them with examples of technical English as a way of illustrating his definition. In addition, I consider technical English to be oral or written communication in English which is used as a means to some purposeful end.

Ford's delineation for technical English, I think, offers a workable basis on which to superimpose the characterization of a peculiarly American variety. That there is such a cultural variety I hope to demonstrate in the discussion which follows. First I will look at causes for the rise of an American style of technical English and then answer the question posed in the title, "What is technical English, American style?"

Background

Ford (1974:1) lists several reasons for the emergence world-wide of a preference for an American style of technical English. I paraphrase his reasons as follows:

1. Most technical research, invention, publication, and training occur in the U.S.

2. The coinage or formulation of neologisms for technological discoveries, processes, and inventions is occurring in American English. Most other languages, instead of translating these new terms, are incorporating them verbatim from American English. Only French, German, and Japanese of all other languages have any significant body of technical terminology of their own.
3. Second-language speakers of English have universally accepted American English as the medium for technical and higher education.

Supplementing Ford's explanations is that of the increasing demand by U.S. business and industry for technical writers on their staffs.

It is important to recognize the distinction between the kind of technical English which has emerged because of the reasons just described and, on the other hand, British technical English. British applied linguists have provided pedagogical materials on technical English for some time. Their works, however, use a British form of language and cover British applications and referents which are often different from American ones. Several London publishers, such as Heinemann's and Longman's, handle numerous texts in an area of study which they call "English for Science and Technology," or "EST". In addition, various schools in England offering "English for Special Purposes", or "ESP", have been in existence for many years. Among international students of English as a foreign language, however, these materials and programs do not provide what many of them seek: that is, technical English, American style.

This kind of reaction and search has been especially obvious, for instance, in international commerce and the transfer of American technology. In training efforts for establishing an Iranian Helicopter Industry, as one example, the government of Iran had made a deliberate choice of American English as the language for the entire mission. Both in Iran and in Texas at Bell Helicopter-Textron, Iranians were being trained in American technical English until political events halted the project in December, 1978. Similarly, other U.S. firms active within developing nations are disseminating American English as an integral part of carrying on technical projects in countries like Saudi Arabia, Kuwait, and Algeria. Indeed, a profound lesson to come out of the Bell-Iranian experience was that actual transfer of technology must follow acquisition of the company's technical English by native speakers of the country seeking modernization.

On another front, American educators, of late, have entered the field of ESP and EST with instructional materials which typically focus on terms and concepts of a particular trade or profession. Under titles such as *Vocational English* (Jochen and Shapiro, 1975) and *English on the Job* (Carlin et al., 1975), American works show model forms of technical communication, including résumés, letters, and report forms. Similarly, Oregon State University has become involved in several EST projects, including training institutes for teachers of technical English, an EST Clearinghouse, and a monthly newsletter. Along with these continental-U.S. efforts toward EST pedagogy, companies involved in international business are teaching technical English through actual content areas of study. At Bell Helicopter-Textron, for example, training directors and functional area supervisors propose that a trainee for a procurement officer can learn American terms and usage by studying the purchasing manuals and documents used in the procurement department.

These efforts by Americans, however much they are wanted, still are wanting. The reason is that the essence of technical English, American style, is not professional jargon or standard English applied to special purposes. It is, rather, an array of precise features in at least seven linguistic categories. In the ones listed below, categories marked with an asterisk (*) receive emphasis in the succeeding discussion because they seem to offer the most concrete delineations:

- * Semantics
- Syntax
- Morphology
- Lexicon
- * Phonology
- Symbology
- * Rhetoric

The Semantics of American Technical English

1. Good technical writing, American style, avoids ambiguity. For example, it strives to eliminate the kind of multiple interpretation possible in a title like *Managing Improvement through Work Simplification* (Bell, n.d.). Does the title of this training workbook mean "the improvement of a manager"? Or does it mean "the manager's role in simplifying work"? Avoiding this kind of ambiguity entails writing a title which more clearly has a single meaning.

2. A comparison is complete. E.g., "Tuesday was warmer (than Monday)."

3. Word choices are denotative.

4. Repetition, parallelism, and anaphora achieve coherence.

5. There is a unity of information, centering on a thesis sentence.

6. Terms generally have these semantic features:
    - + concrete
    - + count
    - + III person
    - + definite

7. There is a continued reliance on the English measuring system.

8. Topics and examples of content subjects come from Amerian life and culture.

The Syntax of American Technical English

1. Sentence order is generally a subject + verb + object.
2. There is little recursion.
3. There are few low-level transformations. Thus, there is retention of simple present tense for description. The use of progressive present tense is limited to narrative reports. Other examples of avoidance of low-level transformations include the use of active voice and declarative statements.
4. Universal, early transformations such as interrogative, negative, and expletive ones are frequent.
5. There is some sentence combining in the form of compound sentences. Elsewhere, though, most sentences are simple and short.

The Morphology of American Technical English

1. Verbs are in active voice.
2. Many verbs consist of a verb plus a particle ("The handle shuts off the flow of current").
3. The formation of new terms frequently results from combining roots and derivational suffixes, e.g., microcomputer from the root compute and the derivational suffix micro-.

The Lexicon of American Technical English

1. American names and spellings serve as sources and representation for new lexical items.
2. American usage is presumed for existing lexical items.
3. There is a careful choice of words which are suitable for the lexicon of a writer's or speaker's audience.
4. There is an avoidance of abbreviations or symbols for terms, except in illustrations, charts, and tables.
5. High-frequency American-English lexical items are prevalent, e.g., part rather than component.

The Phonology of American Technical English

1. A speaker uses voice control of his rate of speaking, volume, and variation of tone so as to suit audience need.
2. There is frequent palatalization of coronal obstruents, e.g., NATURE, INDIVIDUAL.
3. There is a glide deletion after coronal obstruents and liquids, e.g., CHEW and BLUE, where a speaker has no glide after CH- and BL-.
4. All unstressed, lax vowels reduce, e.g., RAPID. BENEFIT.
5. All unstressed, tense vowels reduce except where they are prevocalic or final, e.g., COMPOSITION, GRADUATE (noun), INFININTE.

The Symbology of American Technical English

1. There is heavy reliance on pictorial representation.
2. Use of the writing system of English includes use of conventional American spellings.

The Rhetoric of American Technical English

1. Presentations are deductive.
2. Captions for organization and for transitions are prevalent.
3. Conciseness is a primary objective, including limitations on the sheer volume of the verbal language presented.
4. A tone of restraint pervades a technical text. This tone is achieved by
    a. No hyperbole, slang, or strained metaphors;
    b. Objective analysis; and
    c. Emphasis on facts and on reasoning about facts.
5. Several conventions exist for punctuation and documentation.
6. Familiar terms define unfamiliar terms.
7. Definitions are non-circular.
8. Explanatory techniques include definition, classification, partition, description, comparison, and contrast.
9. There is a consideration for the reader's or listener's point of view.
10. Pronouns like that or which have clear, nominative antecedents.
11. There is an avoidance of idioms, such as "This lesson goes hand in hand with the next one."

Conclusions

A description of American technical English, as the foregoing list, can afford several advantages. For one thing, it can help authors of technical English textbooks to include instruction which is relevant and substantive. A description can also aid in drawing up methodologies for teachers who are training to teach technical English. Such a description can help, too, in the development of courses for international students. By encompassing the areas mentioned above, a technical English course can better help second-language speakers of English with other academic subjects than is presently possible.

Finally, of special interest as virtually an untried application, a precise description of American technical English can be useful to technical instructors and writers in content areas. I refer, for example, to persons involved with subjects like blueprint-reading or nondestructive testing. By adjusting their writing and platform teaching accordingly, these training personnel may be able to eliminate much present anomaly and ambiguity in the training programs of American business and industry.

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SECOND EUROPEAN SYMPOSIUM

"LANGUAGES FOR SPECIAL PURPOSES - LSP"

Bielefeld,
24-26 September 1979

In August 1977, the First European Symposium "Languages for Special Purposes - LSP" took place in Vienna. It now gives me great pleasure to announce that the second symposium on this subject will take place in Bielefeld, Federal Republic of Germany, from 24-26 September, 1979. This symposium is organized by UNESCO ALSED LSP NETWORK in conjunction with the four commissions of AILA "Adult Language Teaching" (Prof. Gorosch, Copenhagen), "Lexicography" (Prof. Weis, Vienna), "Terminology" (Prof. Rondeau, Ottawa) and the Language Centre, University of Bielefeld.

While the objective of the first symposium was primarily the establishment of contact among those engaged in research in this field and the opportunity to attain a general perspective regarding problem areas, the second colloquium will consider in more depth a theme from the concrete basis of the field. We have selected the title "Models and methods for the description of communication in language for special purposes".

The Colloquium will last three complete days and include:

- papers presented in plenary sessions
- discussion in work-groups on sub-themes
- a 'round-table' discussion on a theme of contemporary significance.

Arrival and registration are scheduled for 24 September from 9 - 11 a.m. The opening address will take place at 11 a.m. and the closing address on 26 September, at 6 p.m.

If you would like to participate in the Symposium and present a paper (in German, English, or French) we would appreciate receiving advance notification before 10 March 1979. The final title of your Registration fee is 80 DM.

Contact Address:

Sprachenzentrum der Universitat
- LSP-Symposium -
Postfach 8640
D-4800 Vielefeld 1

EST RESEARCH GRANT

The following research is now in progress at the University of Minnesota. The principal investigator is Betty Wallace Robinett. Those with information that may aid the research, or with other interests should write: Department of Linguistics; 142 Klaeber Court; 320 16th Avenue S.E.; University of Minnesota; Minneapolis, Minnesota; 55455.

TITLE OF RESEARCH:

Delineation of Linguistic Features of Scientific and Technical English as a Basis for the Analysis of PLATO Computer-Assisted Experimental Mini-Units in Reading Comprehension for Non-Native Speakers

ABSTRACT

That much of the world's scientific and technical information will be communicated through the medium of the English language is now a foregone conclusion. This project proposes to facilitate the dissemination of such information to non-native English speakers through a description of what constitutes the special linguistic features of scientific and technical English (STE) as a basis for the analysis of PLATO computer-assisted instructional units for improving the ability to read scientific and technical information written in English.

Stage I of the project will include the collecting of all available information about the linguistic characteristics of STE and the intensive study of texts to confirm the observations by others as well as to add to the data. Specialized vocabulary, which plays a part in characterizing STE will be noted; but greater attention will be paid to discovering the 'sub-technical' terminology which has broader application across many scientific disciplines. Special emphasis will be given to syntactic features which occur with great frequency in STE and which have received less attention than the lexical features.

The analysis of a small set of experimental mini-units for teaching reading comprehension of scientific materials will constitute Stage II. The content of these units, based on the data found in the Stage I research and geared to PLATO, will include both vocabulary and syntax, and will be tested on non-native speakers in the English Program for International Students at the University of Minnesota.

The international implications of the project are obvious; less obvious, but of great significance, is the possibility of hypothesizing, by this analysis, what may be universal characteristics of the language of science.

* * *

ESPMENA 11 AVAILABLE

ESPMENA 11, the Autumn 1978 issue, has been delayed in getting to those who receive it through the Clearinghouse. It is now available, however, on request at the usual price of $1.00 per copy. The "Teaching and Learning Materials" section contains articles by B.H. Baddock ("From Sentence to Paragraph in ESP Courses") and Bill Robinson ("...by the Bike Pump").

The "Research" section contains "Preliminary Study of the Vocabulary of Psychology" by Ailsa Crofts and "Non-Specialist Use of Foreign Languages in Industry and Commerce." There are a number of reviews.

* * *

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The Department of Language and Social Science wishes to appoint a Lecturer/Senior Tutor in English Language with particular responsibility for producing and organising language laboratory materials.

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Salary: Lecturer II - K13,300.00 per annum
Lecturer I - K11,450.00 per annum
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Applications in duplicate should include particulars of age, nationality, marital status, family, if any, qualifications, (including certified documents), experience, present post and the names and addresses of three referees from whom confidential enquiries may be made.

Applications are required by 1st April, 1979 and should be sent to: The Registrar, The Papua New Guinea University of Technology, P.O. Box 793, LAE, PAPUA NEW GUINEA.

An additional copy of the application should be sent to: A.C.U. Appointments, 36 Gordon Square LONDON, WC1H OPE.

* * *

NOTED BRIEFLY:

Thomas Nelson and Sons books are now available from a U.S. outlet. Write Heinle and Heinle Enterprises; 29 Lexington Road; Concord, MA. 01742 (617) 369-7525.

BUILDING AMERICAN ENGLISH: OIL is a recent release available from IML. Write IML; 2622 Pittman Drive; Silver Springs, MD. 20910. (301) 565-2580. This is the first text in an ESP series from IML. This title is aimed at beginning level students and is in the Situational Reinforcement format.

Litton Educational Publishers has released a broad spectrum ESP title: CONVERSATION IN ENGLISH - PROFESSIONAL CAREERS. Write Litton Educational Publishing; 135 W. 50th Street; New York, NY.10020 (212) 265-8700.

Oxford University Press, England has a new series by Jo McDonough available. It is LISTENING TO LECTURES, a series of cassettes for individual study. Packages available include Mechanics, Computing, Sociology, Biology and Government. ESP teachers may also find READING AND THINKING IN ENGLISH a useful Oxford title. Send queries to ELT Marketing, OUP, Walton St. Oxford OX2 6DP England.

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☐ **ENGLISH FOR BASIC MATHS**
By David Bleckie

A new Course for ESP students at lower intermediate level upwards.

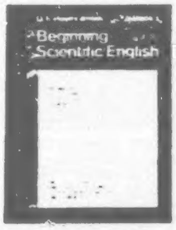
The Students' Book has 14 teaching units covering simple arithmetic, fractions, ratio and proportion, elementary algebra and geometry, as well as graphs, logarithms and trigonometry. Each unit contains oral and written practice, with 7 revision test units.

Common abbreviations, the Greek alphabet and verbal equivalents of mathematical symbols are explained in appendices at the back of the book.

The Teachers' Book contains notes and a key.

☐ **SAY WHAT YOU MEAN IN ENGLISH**
By John Andrews

A two-part supplementary course in spoken English, with the emphasis on teaching communicative skills from an elementary to an intermediate level. Embodying the notional/functional approach to language learning, it gives meaning the highest priority and comprises 50 units in 2 volumes, dealing with such language acts as apologizing, making suggestions, giving and accepting invitations, and expressing annoyance and enthusiasm. The complete package consists of 2 pupils' Books (illustrated with simple but lively line-drawings, with the language function determining the grammatical structures presented), teacher's notes, accompanying cassettes and workbooks to provide written reinforcement.



☐ **BEGINNING SCIENTIFIC ENGLISH**
By D.E. Royds-Irmak

This course consists of two books aimed at those students preparing to study scientific subjects in English. Elementary science material is presented in 40 graded units, each dealing with a different topic. In every unit, short exts, A and B, are followed by exercises on those vocabulary and language items which take a prominent place in technical writing. Text A presents the subject matter in everyday language; Text B is the same text re-worded in scientific terms. Special emphasis is given to passive structures and comprehension questions and points for discussion are included. Illustrated with diagrams and photographs.

☐ **WRITING SCIENTIFIC ENGLISH**
By John Swales

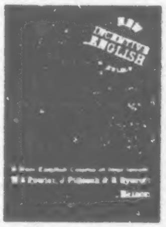
A course specially designed to improve the writing of scientific English of EFL students taking physics, chemistry, engineering or technical subjects.

A comprehensive coverage of the structure of scientific English at textbook level and a wide variety of exercises are offered. The approach adopted is flexible; certain units, such as those dealing with dimensions and properties, definitions, descriptions and tables and graphs, develop along functional lines, but in areas where a functional design is less appropriate as in relative clauses and compound nominals, the approach is more grammatical.

☐ **FUNCTIONAL ENGLISH**
By Ronald V. White

A functional course for intermediate and advanced students of English.

Functional English is a two-book course which teaches students to communicate effectively by understanding and controlling the relationship between language forms and functions. A wide range of textual material and exercises from a variety of sources is featured, showing how both spoken and written English are used to serve the various purposes on communication. The aim of the course is to build upon teachers' and students' existing knowledge of and experience in the language.



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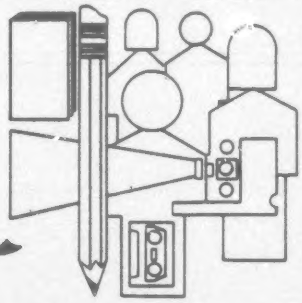

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ISSUE 26
MAY, 1979

English for Specific Purposes

KARL DROBNIC, EDITOR
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Abstract (See Bibliography)

IMPROVING TECHNICAL ENGLISH INSTRUCTION IN THAI UNIVERSITIES: PROBLEMS AND PROCEDURES

Kantatip Siripol, Ph.D.
University of Texas at Austin

English for Specific Purposes (ESP) Programs have been incorporated into the syllabus of many universities and colleges. Teachers of English thus face the problem of providing instruction in the kind of English required by students of various science disciplines. These students must be able to read textbooks and other literature written in English related to their discipline.

Questionnaires sent to Thai engineering students and to teachers of technical English revealed that in reading technical texts, students meet with many linguistic factors that hinder their full comprehension. Besides the existing problem in the reading process, the problem can occur on a lexical, structural and discourse level. The semi-technical vocabulary, long nominal compounds, some grammatical structures, e.g., the passive voice, embedding sentences, anticipatory "it" construction, and contracted relative passive construction remain a problem for foreign readers. The presupposition, and its references, connectives, along with the rhetorical structure of the technical paragraph are the student's main problem at the discourse level. Apart from these linguistic factors, some extra-linguistic factors also limit the success of technical English instruction for Thai engineering students. The majority of the students do not see the importance of technical English. The current objective of the course is not specific enough and is not communicated to the students. The students apparently lack motivation in the course. The teachers' training is usually literature-biased, and some teachers do not have EFL or ESP training.

The data from the questionnaires, together with a review of related literature, were analyzed and synthesized into a strategy for reading comprehension for Thai engineering students. The rhetorical approach is recommended. Students should be made aware of the rhetorical functions and the developmental patterns of rhetorical techniques while reading. Student should read by "conceptural paragraphing" and not by the physical appearance of the paragraph. Students should learn to recognize textual cohesion features, e.g. lexical and grammatical cohesion, connectives. Various exercises and techniques of how to teach these features are discussed and suggested. Variety is suggested for the technical English classroom which can be made by adding some language games. Finally, an outline design of a technical English syllabus that may be used effectively with Thai engineering students, is put forward.

ESP - MEDICINE

Margaret van Naerssen of the University of Southern California Linguistics Department is coordinating an effort to bring together information about ESP - Medicine. A working group met and formed at TESOL Boston. Their current efforts include identifying papers and articles, drafting a position paper, and compiling a bibliography. The Clearinghouse/Newsletter has agreed to act as a vehicle for disseminating information about the group's efforts. Announcements will be forthcoming.

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THE ARTICULATION OF WRITING PROGRAMS IN A SCIENCE/TECHNOLOGY INSTITUTION

Gregory A. Barnes
Drexel University

The ESL teacher in this country is often asked to meet the English needs of a class which is predominatly Science/Engineering oriented, but which contains a smattering of students from other disciplines. At Drexel University, an advanced ESL writing class of 15 registrants typically includes 8 students from engineering, 3 from science, 2 from business administration, and 1 each from a social science or home economics area. Moreover the engineers likely represent four or five disciplines, and the three science students perhaps a discipline each. Specialized writing assignments can be, and are, given these students through weekly tutorials but the teacher can hardly deal substantively with all the disciplines involved.

In this situation it has been necessary to identify the basic shared English needs of the entire class. Three such needs, which presumably have some degree of universality among American universities, were agreed upon:

1) All students must learn to organize data in accordance with traditional rhetorical structures;
2) Graduate students aside, all must pass through humanities requirements in which they compete with Americans;
3) All must be able to deal with technical presentations, even if only in completing required science labs or in reading social science materials.

Thus there was eminent justification for an introduction to technical writing in ESL classes, and particularly so given the preponderance of Science/Engineering students at Drexel.

On the other hand, the common requirements presented a set of conflicting messages. The technical writing staff advised the ESL teachers to stress organization and economical presentation. Humanities teachers, by contrast, were looking for stylistic grace (or at least, suggestiveness) and organically developed themes; even ESL texts, such as Ann Raimes's Focus on Composition (1978), typically encouraged the free, spontaneous interplay of ideas. Where the one emphasized the audience, that is, the other encouraged the personal expression of the writer.

The decision at Drexel was to go with a rigorous approach to rhetoric. It was believed, first, that humanists, for whom language is an instrument easily manipulated, overestimate the abilities of foreign (and for that matter, American) students lacking special language aptitude to reduce ideas to a logical outline or progression. It was also perceived that cognitive skills such as clear organization and care for manuscript conventions could be mastered by most students, and served to compensate, in humanities courses, for stylistic awkwardness. Finally, there was a strong pedagogical consideration: Since the teacher could not always deal with the substance of the students' interests, rhetorical forms offered a basis for communication and instruction.

Once this direction had been established, the next step was to consult with the freshman writing staff, and to determine which of the approaches (and texts) in use in their courses would give greatest weight to the students' skills in organization and manuscript preparation. Other humanities courses were reviewed with the idea of facilitating the foreign students' progress through various university requirements; this was not an effort to find "easy teachers" but rather an attempt to help the students see their obstacles clearly. Science and engineering professors were also asked to provide guides to report writing in their disciplines, so that the students could work with authentic structures in ESL assignments.

The results to date have been encouraging. The students receive a briefing early in their studies as to the meaning--and trials--of a college education in the United States. Perhaps more importantly, ESL teachers have met with civil and mechanical engineering professors on the requirements in design courses; with physicists and chemists about the nature of Drexel lab reports; with the technical writing staff about the substance of that burgeoning field; and with fellow English teachers about the many problems of teaching our native language. The perspectives and materials taken from these other disciplines have been useful. Of equal value has been the ability of the ESL staff to acquaint the wider university community with the special problems of the foreign student.

* * *

SCIENCE, ETHICS and ELT (See Bibliography)
The following bibliography is now available through the Clearinghouse

THE TEACHING OF ETHICS AND SCIENCE

Russel Clark, Macalester College

In assembling this guide to the teaching of ethics and science, my intention has been to provide a resource for three different kinds of teachers. First, it is hoped that the teacher of English as a Second or Foreign Language who lacks an extensive background in science will find here a useful reading list, covering such subjects as the theoretical and historical background of ethics and science education and a discussion of current ethical issues. Second, for the ESL teacher particularly interested in the teaching of English for Science and Technology, it is hoped that the works included here will stimulate greater interest in and recognition of ethics and values education as a vital component of curricula in this rapidly-growing movement. And finally, I hope to simplify the task facing teachers in other disciplines, who may have looked for a relatively concise bibliography on this subject, and, like myself, found none readily available.

* * *

A PRELIMINARY REPORT dealing with oral and written EST has been completed by J.R. Ewer at the University of Chile. Follow up work is currently underway. We have excerpted the Method section from the report below. Those interested should contact Ewer directly at the following address:
J.R. Ewer, Department of English; Universidad de Chile; Casilla 179-D, Santiago, Chile.

FACTORS FACILITATING COMPREHENSION AND PREDICTION IN FORMAL WRITTEN AND ORAL SCIENTIFIC ENGLISH

Articles from professional journals and recordings of British and American academic lectures at both undergraduate and graduate level were examined*, using three separate methods for identifying the features which appear to play major roles in facilitating comprehension and prediction.

In the first, each text (transcripts in the case of lectures) was examined initially to ascertain the general organizational structure (see Tables 1 and 2). It was then worked through sentence by sentence to note the words, phrases, grammatical constructions and non-verbal features which seemed to be most important in expressing and relating the different basic semantic or communicative concepts of which the organizational structure was composed (see 3.1.1 'Discourse Structure' below). Items which were seen to be important, but which could not at first be assigned to any of the categories of 'base-concepts' established, were accumulated until the corresponding discourse functions became apparent(2).

The second method, applied to articles only as representing a more complex and better-organized structure than lectures (3.2.1 below), consisted in compressing to telegraphic form stretches of text which contained a wide variety of base concepts, i.e. eliminating as many items as possible consistent with the retention of meaning, as judged by the capacity of a typical real-life reader of such a text to reconstitute the message accurately(3). Apart from indicating what features are recurrently essential for effective communication, this method has thrown interesting lights on what is of secondary or tertiary importance.

In the third method, the lecture material was analysed from the point of view of the language elements to which the speakers themselves gave special emphasis by means of prosodic features such as emphatic stress (often with concomitant syllabic lengthening, pause insertion and pitch change); pauses; and changes of speed or tempo.

In each of the methods employed, the accumulation of data from the texts analysed has led firstly to a progressive refinement of the mode of analysis, and secondly to the emergence of rather stable patterns of results. These patterns, when compared and superimposed, have not only converged to indicate some of the key factors in comprehension and prediction, but have helped to shed a certain amount of light on various other aspects of the types of discourse studied.

* * *

TECHNICAL ENGLISH AND THE SHAH OF IRAN

Dr. Diana Mae Sims, Tarrant County Junior College

When I first joined Bell Helicopter-Textron as a language consultant, my colleague, Dr. Rod Wilson, who preceded me by a year or so, told me, "Bell is a linguist's paradise." I found his assessment to be true. The following article recounts what he and I found there: linguistic theory, particularly principles of English for science and technology (EST), being applied to assist in establishing a helicopter industry in and for Iran. I offer our findings from the standpoint of language planning, that is, from the view that the Bell mission was a treatment mandated by the Shah of Iran. While political events forced cancellation of the contract in December of 1978, the effort remains a historical artifact, an example of planning wherein language, in Joan Rubin's words, was "one more resource which an administration may manipulate for its own goals" (1973:5).

I describe, first, the Iranian policy on the precise language to be used in transferring technology from Bell Helicopter to the Iranian Helicopter Industry (IHI). A discussion of development and implementation of this policy follows the description. Finally, I look at the chief results of the program. Throughout, I use the phrase *technical English* as the language variety to which the mission was committed from its inception.

In the literature of language planning. research and analysis have frequently emphasized language determination (see Garvin 1973:30). The Shah's deliberate choice of technical English, American style, however, was a *fait accompli* apparently long before Bell Helicopter's involvement. The mission was joint venture of Bell and IHI, a quasi-governmental agency composed largely of Iranian Air Force personnel. Bell developed training for Iranians in all aspects of helicopter manufacturing; indeed, every Bell employee was to have an Iranian counterpart. Top-level IHI personnel cameto Euless, Texas, for training. American instructors of other personnel were prepared to transfer to Iran where a community was under construction at Esfahan for their training center as well as for the proposed Iranian plant.

Though the Bell-IHI mission was patently an effort at transferring technology, it was, as well, an attempt at modernization of Iran through its citizenry's acquisition of American technical English. This objective of the Shah seems clear in the enabling documents of the venture, which reportedly stated that Iran was buying both language and technology. The motivating reason, of course, was the view that knowledge of technical English permits access to the literature and professional intercourse of research, technology, and commerce.

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*The contents of this corpus are listed in Appendix A.

The insistence upon technical English and upon American English was all-pervasive. During the workday at IHI and within the physical confines of the manufacturing plant, other languages were to be excluded. On arrival in Texas for training, however, many of the Cadre, the vanguard of Iranian management personnel, were unaware that they were to use English rather than Persian on the job. This newly-discovered requirement usually forced the trainees to make a fresh commitment to developing proficiency in English.

Interestingly, the Iranian government consigned the development and implementation of its language decision largely to Bell's discretion. These stages of the mission entailed responsibilities and efforts in which American linguists were involved. A list of the language development decisions and activities of these linguists, as well as some of their conclusions and findings during this phase, follows:

1. A Dictionary of Bell Helicopter Terminology was developed after field trips to Bell plants, interviews with employees, and requests for technical word-lists from supervisors. The Dictionary, composed of some 1700 terms, was continuously under review. It also contained separate lists with hundreds of acronyms, abbreviations, symbols, and tool codes used in Bell operations. Thanks to word-processing equipment, production of new editions of the Dictionary from time to time was not difficult.

2. The helicopter manufacturing process was classified arbitrarily into eleven functional areas, and a textbook was written for each area. A twelfth text on General Helicopter Terminology was also compiled. Typically, each textbook contained twenty to twenty-five lessons with pronunciation exercises, definitions, sentence practice, terms for discussion, and illustrations. A glossary extended each text by including terms from the lessons and other technical words and phrases common in a particular functional area.

3. Tapescripts were written and recorded on cassettes for a review of each group of five lessons in every textbook.

4. On photographic expeditions, a linguist accompanied by an in-house photographer collected slides portraying terms from the functional areas of the plant. Many slides were also reproduced as enlarged Xerox-type of copies in color for use as class handouts.

5. Daily and final tests were written to accompany the instruction.

6. Workbooks were also initiated to provide activities using the technical terms under consideration.

As the language development phase progressed, some unexpected linguistic considerations became involved:

1. Bell would need to write virtually all of its own materials. The considerations were its distinctive usage for technical English and the lack of commercially published educational materials on technical subjects in simple language and style.

2. The dialect in which to cast phonetic transcriptions of terms in the Dictionary and texts was never really determined. What to do about reduced vowels, for example, was especially controversial.

3. Finding Bell personnel whose speech was "dialect-free" was particularly illusive. Such speakers were needed to record cassette tapes for the review exercises. Of course, defining dialect-free was part of the problem.

4. For written dialogues in the curriculum, the language staff had difficulty agreeing on levels of usage to portray. Moreover, staff members often challenged what another member had written because they questioned whether they, as native speakers, would ever really say a particular sentence.

Despite this inability to agree on some theoretical models, the staff completed and published curriculum materials and began implementation of the program. At this point their chief activities were these:

1. Acquisitions for the training library/learning center entailed much bibliographical search as to available materials for non-speakers of standard American English.

2. Very little material was requisitioned by the staff for English pedagogy per se. The reason was that Bell was committed to English language teaching by means of instruction in content areas. For example, functional area supervisors felt that an Iranian procurement officer could learn procurement terms and usage by studying purchasing manuals and documents actually used by the company.

3. The language staff edited materials of technical instructors responsible for curriculum development in content areas (e.g., quality assurance, bonding, fabrication, and so on). Their writing, it was discovered, needed to be screened for idioms, low-frequency lexical items, sophisticated sentence structures, allusions, and metaphors. Linguistic forms like these, of course, can be anomalous for second-language learners.

A further way of interpreting the efforts of Bell linguists during the implementation phase of the language program is to list the contrasting methods of an employee involved in the program but untrained in linguistics. After reviewing a number of his lessons, I made these notes:

He does not know phonetics.

He writes circular definitions.

He uses tenses requiring several transformations.

He uses sentence structures requiring many late (low-level) transformations.

He eschews conversational expression (e.g. contractions).

He composes sentences unlikely in real life.

He uses simple present tense instead of progressive present.

He employs recursively-embedded sentences.

He uses abbreviations which non-native speakers probably would not know.

All of these practices can pose difficulties for persons learning standard American English. Other lessons, prepared by linguistically-trained staff, were designed not to do so.

Nevertheless, this particular Bell employee, with the rest of the language staff, conducted classes at Bell for several months in 1978. In mid-April the students--contingents of about fifteen Iranian trainees in each group--began arriving in Texas every three weeks. Based on their experience, several findings are clear:

1. The Cadre wanted to learn American English, and they were learning it.
2. The Iranians had a critical need for remedial English, despite their having had a Defense Language Institute (DLI) course prior to entering Bell's training program. In response to this need, Bell initiated basic English courses incorporating DLI materials. This unexpected situation persisted, however. Few of the trainees developed proficiency sufficient for handling technical English.
3. Cadre called for more illustrations in the curriculum. They requested additional handouts and pictures beyond those planned for the program.
4. Existing Persian/English and English/Persian dictionaries, which the trainees used extensively, unfortunately give only British glosses and thus often fail to reflect American usage. Frequently the trainees mistook a meaning and required valuable class time for explanation.

The foregoing discussion mentions a number of instances where linguistic considerations applied to a technological training situation. In this respect Noam Chomsky has said that "principles of psychology and linguistics, and research in these disciplines, may supply insights useful to the language teacher" (1966:40). In the work which linguists and language teachers at Bell Helicopter-Textron did for the Shah of Iran, many insights of psycholinguistics and dialectology proved useful to teachers and materials writers, though not directly taught to their Iranian students.

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* * *

ABSTRACT (See Bibliography).

RHETORICAL COMPETENCE AND EST DISCOURSE

George R. Hepworth
ESL Specialist

Bilingual Education for Choctaws of Mississippi
Mississippi Band of Choctaw Indians
Philadelphia, Mississippi

ESL teachers are aware that effective communication often depends on recognizing when the actual purpose of an utterance is different from that suggested by its surface form. Implicit functions are, therefore, a frequent source of difficulty for ESL speakers. Unfortunately, however, the importance of this fact is too often overlooked for written discourse. Texts used in teaching the English of Science and Technology (EST), for example, tend to focus on the specialized vocabulary rather than the rhetorical structures and functions of EST discourse.

This paper presents the results of an analysis of EST discourse using a rigorous method of description--the Discourse Bloc Model. This model identifies units of discourse by their functions rather than by their forms. When the Introductions to Experiment Reports from several fields of science were looked at, the resulting description identified the rhetorical functions employed consistently. An idealized version of the Introduction to an Experiment Report can thereby by proposed. It is also found that the predicted correspondance between implicit, rhetorical functions and explicit discourse functions exists. The term "rhetorical competence" is used to refer to the ability to recognize this use of discourse functions in EST.

* * *

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noted briefly:

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During this intensive course, business-people and students at the intermediate and advanced levels will be offered twenty hours per week of classes in the English of Business and Economics, cultural orientation to American lifestyles, and field trips to business firms in San Diego.

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* * *

A new journal, APPLIED PSYCHOLINGUISTICS, will be published by Cambridge University Press. Starting date is 1980. It is now looking for manuscripts. Editor is Sheldon Rosenberg, Department of Psychology and Institute for the Study of Developmental Disabilities, University of Illinois at Chicago Circle, Box 4348, Chicago, IL. 60680. Relevant articles from a broad range of fields are sought.

* * *

Plans for the ESP Survey, an outgrowth of the Clearinghouse meeting at TESOL Boston, go forward. The survey should be in the mail soon. Still undealt with is the issue of whether there should be an ESP Special Interest Group in TESOL. There is a strong "no-more-SIGs" feeling within TESOL; thus, an effort to from any new SIG, ESP or other would be a time-consuming task requiring a great deal of organizing. Those with suggestions or opinions on the subject are encouraged to forward them for inclusion in the Newsletter.

* * *

1979 EST INSTITUTE

Plans are now well advanced for the 1979 EST Institute in Corvallis. We are expecting participants from Latin America, Europe, North Africa, the Middle East, North America & Southeast Asia. In addition to the previously announced program, we are currently arranging for a one-day workshop with Chris Candlin as part of the Institute.

Last year we had several interesting guests visit during the course of the Institute, and we extend the same invitation this year. If your August travel plans will bring you to the area, you are invited to stop by for a day and meet your colleagues.

* * *

The American Language Academy has announced a new ALA ESP Series. Available are ESSENTIALS OF MANAGEMENT by Sheldon Wise, ESSENTIALS OF INTERNATIONAL TRADE by David H. Wyatt, ESSENTIALS OF AVIATION TECHNOLOGY: AVIATION MECHANICS by Noel W. Schutz Jr. and Bruce L. Derwing, LECTURES FOR LISTENING COMPREHENSION (cassettes and practice tests) by William S. Annand, and THE ALA TEOFL COURSE, Second Edition (package for institutions only) by William S. Annand and Sheldon Wise, assisted by Stephen Geiman. For details please write to Joan Roberts, Coordinator of Materials, Executive Offices; American Language Academy; Catholic University; Washington, D.C. 20064.

◆

Longman Group (Far East) Ltd. has published SPOTLIGHT - TECHNICAL ENGLISH FOR ASIA by Ray Williams. Queries should be directed to Longman House, Tong Chong St; Quarry Bay; Hong Kong. ISBN 0 582 72009.5.

* * *

EDITOR'S NOTE:

Excerpted below are the introductory sections of a 22 page article on ESP-Medicine. The complete article is available through the Clearinghouse (See Bibliography).

IMPROVING ENGLISH MEDICAL
RECORDINGS BY FOREIGN MEDICAL GRADUATES

Margaret M. van Naerssen
University of Southern California

Results of analyzing a sampling of patient histories and postoperative notes across medical specialities, from recordings of native English-speaking MDs and training materials are presented as a preliminary guide to structures and vocabulary most common in medical recordings. Pragmatic considerations of recording medical notes are also discussed and a checklist of such consideration is included. Existing commercial materials relevant to training in making/writing medical notes, aimed at native English speaking and foreign medical personnel are surveyed, especially those addressing linguistic and pragmatic consideration of medical notes. The goal here is to provide some specific curriculum suggestions and to illustrate a way results of linguistic and contextual analysis can be applied to the English for special purposes classroom.

Introduction

This presentation reports the results contained in a longer paper done this past year on medical records as a register variation of physicians' language. In the longer paper the literature was also surveyed for medical records and other doctor communication (including patient interviews) and for "simplified" registers including foreigner talk, baby talk, pidgins, and English note-taking. Comparisons of the features of medical records with those of the above-mentioned registers were made. The bibliography of the longer paper is the one provided at the end of this paper. This presentation, due to space limitations, will only discuss the results of the discourse analysis portion of the study in terms of its application to English for Sepcial Purposes for those working with Foreign Medical Graduates (FMGs).

For those not familiar with the English problems of FMGs, I'd like to quote the Educational Commission for Foreign Medical Graduates guide developed in 1975 and 1976 for orienting FMGs to the U.S.

> One point regarding the foreign physician has been made increasingly clear by many publications and regrettably too few national meetins in the past few years — the majority of physicians new to the United States are ill-equipped to initially assume their role alongside American counterparts in residency programs or practice. They often lack necessary proficiency in English, written and spoken; many fall far short in basic medical concepts and skills; almost all are woefully unfamiliar with professional routines and interpersonal relations in the United States. The results, all too often, have been situations which are potentially dangerous for the patient and are a threat to the emotional well-being of the foreign physician and his accompanying family. (ECFGM: 1976).

This study is part of a more general interest in doctor communication. This interest has been focused in the past on improving communication in medical settings for foreign medical graduates whose native language is not English. However, in order to develop materials that reflect the reality and native-speaker competence (or approximations of that), one must focus also on the actual communication of native English-speaking doctors as well. Thus this study focuses on features in medical reproting by native English-speaking physicians with observations as to how the results of the features studied might be applied in improving the orientation of FMGs.

Communication by Physicians

The types of communication that a doctor is involved with in medical settins include:

1. Doctor: Patient
    - a) interviewing
    - b) talk during treatment
    - c) talk during follow-up
2. Doctor: Other Medical Personnel
    - a) doctor: doctor
    - b) doctor: nurse
    - c) doctor: paramedic
    - d) doctor: medical student, intern
    - e) doctor: administrative personnel (ex. hospital head, medical records personnel, secretaries, receptionists, etc.)

The first type, doctor: patient, is principally oral communication with the exception of written prescriptions, which really are directed to a pharmacist and generally unintelligible to the patient (both because of terminology as well as handwriting). The second type, doctor: other medical personnel, can be in both oral and written form.

Impressionistically, the doctor: patient communication appears to be one register with a range of variations within it. The doctor: other medical personnel appears to be another register (as long as it concerns medical matters), again with a range of variations in it.* Thus the FMG, whose native language is other than English, faces a rather large task in developing communicative competence in English in medical situations. This task also includes learning about the cultural aspects of patient attitudes and the medical profession (including life in a hospital, legalities in medicine, etc.) (The ECFMG guide mentioned earlier provides a list of communication needs of FMGs as seen by those in the medical profession.)

---

*Ferguson, 1977, p.9.

Even though medical records represent only a small aspect of doctor communication, they do represent recorded communication, evidence, and one starting point from someone interested in analyzing doctor communication. In my own experience I found that my strongest supporters for assisting FMGs were the supervisor of medical records and the medical education office personnel. In the medical records department were tapes and transcripts evidencing problems in communication. Daily the medical transcribers had to spend sometimes 5 times as long transcribing FMG medical recordings. (These same FMGs also had communication problems with patients but there was no hard evidence of this.) Thus I feel it is important to support the medical records departments by providing them with some materials, some supportive studies, that they can take to their hospital administrators as constructive solutions to their complaints about the FMGs' English. Then once an administrator recognizes that perhaps the problems aren't insurmountable and that material is available, perhaps he/she might be more willing to consider additional work with FMGs in other aspects of communication in English. Thus this was the primary motivation of this study.

Medical Records-General

A branch of the business office of a hospital is the medical records division.

> A complete medical record must be kept on every patient. This medical record is a permanent document. It gives a complete history of all that is done for the patient during his hospital stay. It includes at least the following information: how the patient's condition was noticed and diagnosed; how the condition was treated; and how the patient responded to the treatment. Most hospitals have a staff of medical records technicians and librarians who maintain these important documents. Their work is supervised by a medical records administrator. (Bloom, 1976)

I would estimate that in almost all large hospitals in the U.S. today the principal means of recording medical reports (not including daily charts, lab reports, etc.) is by dictation. There is at least one recording center, if not more, located around the hospital. Frequently it consists of a telephone line to a recording center. (Computers are being used more and more now for storing parts of reports.) The medical transcriber then works from those tapes. Once a report is typed it is returned to the doctor for an approval signature and then sent back to the medical records department. Handwritten medical reports are also acceptable.

* * *

EDITOR'S NOTE: Since completing her dissertation at the University of Texas at Austin, Francoise Salager has continued her frequency studies at the University of the Andes. Her work forms a continuing corpus much too long for inclusion in the Newsletter. We are excerpting here the abstract from her article on frequency and homogeneity, and most of a follow up article on finite verbal forms. The complete texts of both articles are available through the Clearinghouse (see Bibliography).

THE FREQUENCY-RANGE CORRELATION AND THE CONCEPT OF HOMOGENEITY

Francoise Salager
Universidad de Los Andes
Mérida, Venezuela

ABSTRACT: Word lists have been criticized on the ground that they are not an adequate tool for measuring the usefulness of lexical items. This article presents a new correlation existing between the average frequency and the range of lexical units. This relationship allows one to use the word list on a usefulness basis by rejecting pathologic items included by statistical coincidence. The correlation average frequency per text range does not depend on the size of the sample texts. This property is used to predict the sample text size to be used to obtain statistical significance over a predetermined lexicon, according to the teaching purpose.

FINITE VERBAL FORMS IN TECHNICAL LITERATURE

by Francoise Salager

Because of the definite trend toward specialization within the realm of language pedagogy, articles dealing with aspect of "special purposes" language training—whether it be English, Russian or French, have become commonplace in linguistic journals. The number of general books, textbooks and journals dealing with instrumental languages also testify to the evergrowing importance of the teaching of foreign languages for "special purposes". It is a well known fact that, because the communicative function of technical articles differs from that of literary works, some morphosyntactical and grammatical forms are favored in one style and neglected in the other, ie, the language of science suffers some kind of formal linguistic restrictions. As Toppin (1949: 28) mentioned, one of the characteristics of technical writing (as compared to the general language) lies in the difference of the significance of some grammatical forms. Nevertheless, most investigations carried out on the subject (Collins 1939, Huse 1945, Hough 1953, Brown 1956, Chmelev 1965, 1973; Croft 1960, 1966; Etiemble 1964, 1966; Ewer and Latorre 1967, 1971; Bakhudakov 1970, Salager

1972, Ford 1974, Sopher 1974, Widdowson 1974, Strevens 1977, Johns and Trimble 1978) are qualitatively based.

The present paper quantitatively defines the finite verbal forms (ie, passives, subjunctives and imperatives) most frequently used in Technical English (TE) literature[1] what Elliott (1976: 29) names the definable and rather limited range of tenses.

The Corpus itself comprises 20,000 words (ten randomly selected TE sample texts of 2,000 words each). Ten General English (GE)[2] texts of 2,000 words each have also been considered in order to appreciate the difference of usage in both types of literature. Moreover, the primary data include some writings in technical Russian, French and Spanish: this allows us to draw a parallel between those languages.

The number of passive verbal forms was recorded as well as the total number of verbal forms (finite and non finite[3]) which occurred in each of the ten TE and GE groups. To this end, three different categories were assigned, viz.,

V_{pass}	(passive)
V_{act}	(active)
V_{O}	(imperative and subjunctive)

PASSIVES

As Table 1 indicates: % V_{pass} = 39

% V_{pass} = 59

% V_{O} = 2.

The mean of the means (ie, the mean of the individual percentage of each sample text) is 40.90 with a SD of 11.90. This SD seems quite high at first sight but as the data indicate, 2 texts present an extreme value as far as the percentage of V_{pass} is concerned. If both values are removed, the SD drops to 7.2 and the percentage of V_{pass} remains unchanged (40.60). This shows that, by removing these 2 texts, there is less statistical scattering.

The following GE data have been recorded:

% V_{act} : 88

% V_{pass} : 11.

Hence the percentage of TE V_{pass} is significantly lower than in GE ($p < 0.1$ or 99.5%). This leads to some remarks.

(1) Whereas in GE the passive turn is an agent passive, in TE it is agentless (cf. Salager 1977, Ford 1974, Trimble, 1978) e.g:

English:

- This generally can be done in a few *hours*..
- The choice of the degree of detail is *based* upon...
- The oil recovery performance *can be* improved...
- Complete or nearly complete areal coverage *is based* upon...
- The term *is defined* as the traction of water...
- The density difference *is* here *defined* as...
- The total velocity *is defined* as...

French:

- Le milieu poreux *est* défini par...
- Les perméabilités relatives *sont* supposées connues...
- Le problème est de savoir comment *se dissipe* l'énergie...
- Puisque celle-ci *est* contenue dans le gaz...
- Le gaz *se* libère de la solution...
- Le gradient de pression *est mesuré* sur l section centrale du massif...

Spanish:

- ...depende de las condiciones geológicas donde *se* perfora...
- A través de este cabezal *se* bombea cemento puro.
- Cuando el tapón superior *se* superpóne al tapon inferior...
- *Se* pueden traer a la superficie muestras representativas...
- ... *se* determinan las diferentes clases.

Russian:

- Chirokoe primenenie ... otnosit*sya* kak...
- Poiavil*is'* značitel'nye raboty.
- Suchnost' kategorii protses opredeliae*tsya* kak...
- Logičeskaya struktura vxhoga sistemy *pokazana* na ric. 2.
- Neft' u prirodnye gazy iavliaiu*tsya*...
- Obch[illegible]ya schema sistemnogo analiza izobr[illegible]*ena*...

We can observe that, whether it be in Russian, French, Spanish or English, all TE passives are agentless which tends to prove that this is a universal feature of technical languages. This might be due to the impersonal cause - effect relationship of most scientific, experiments, to the presence of an assumed cause or to the desire of presenting the fact unemotionally.

(2) We can also note that there is a close relationship between the high frequency of TE V_{pass} and the frequency of "to be" and its derivatives in TE (53.5%) as compared to its frequency of occurrence in the general language (43.4%. For further details, cf. Salager 1977).

(3) The frequency of occurrence of this grammatical register - marker has a direct bearing upon the use of personal pronouns as is illustrated in Table 2. All the personal pronouns present a significantly higher value in GE than in TE. Nevertheless a special note must be made of the "anticipatory it", found in TE in such expressions

as:

- it is certain that
- it must be noted that
- it is probable that
- it is possible that
- it might be mentioned that
- it is rather interesting
- it is quite surprising

IMPERATIVES and SUBJUNCTIVES

The extremely low percentage of imperatives and subjunctives (2%) indicates that both finite forms account for very little in technical literature.

A. Imperatives are restricted to instruction manuals and problem settings (cf. Trimble and Trimble: 1977), e.g:

- Adjust the MOD OSC power ...
- Set the meter panel selector ...
- Determine the volume of gas ...

In mathematical discussion, the "let us + infinitive" construction is most frequently encountered: e.g., let us assume that; let us take another example; let us not forget that. The same characteristics may be observed in French, Russian or Spanish Technical literature as the following examples testify:

French:	Introduisons la vitesse relative ... Remarquons que les valeurs limites ... Supposons en effet que let profil ...
Russian:	Domustim chto (1st person plural) Opredelit' ob'iom gaza (infinitive) Puct' x raven y (particle).
Spanish:	Ajuste el angulo de la lamina ... Supongamos que ... Determinar el volumen de gas.

B. The subjunctive is to be encountered in a certain number of contexts, viz:

a) condition: if s be regarded as a continuous variable, one can consider ...

b) concession: whether this be the case ...

c) subordinate clause expressing the aim:

- ... in order that the contribution of the quencher be a minimum ...
- It is important that such checks be made...
- It is clearly necessary that this value be positive ...

At any rate, the subjunctive mood tends to disappear: "was" is prefered to "were" (e.g: as if the liquid was; it appears as if the process was irreversible); "in order that" and "so that" tend to trigger an indicative, e.g:

- ... so that a decrease in temperature is observed ...
- So that the arrow on the polarity plug points to ...
- So that the converter operates correctly with a 680 ohm 10ad instead of ...
- such that only one tuning element is required in ...

Moreover the auxiliaries may/might, can/could, shall/should followed by an infinitive are prefered to the mere subjunctive, e.g:

- ... so that the reverse burst of tone may be transmitted.
- Should an increase in signal product ...

If the subjunctive mode tends to become more and more optional in English, it remains obligatory in French, Russian or Spanish.

In summary, as far as the finite verbal forms are concerned, the agentless passive turn is the TE register marker par excellence. This agentless feature seems to be a universal of technical languages. A corollary of this statement is the almost complete absence of the 1st and 2nd personal pronouns and the predominance of the anticipatory "it". Imperatives are almost non-existent and subjunctive becomes an optional mood which tends to be replaced by other linguistic means.

FOOTNOTES

(1) TE is defined as the written language of Engineering.

(2) The TE and GE articles are listed in the bibliography.

(3) The non finite verbal forms are the object of a forthcoming article.

REPORT OF THE 4TH ALL-POLISH SYMPOSIUM OF THE POLISH NEOPHILOLOGICAL SOCIETY

by Elzbieta Krawczyk, Katowice

The Symposium was held in Warsaw in the Palace of Culture and Science from 17 November to 18 November 1978 and was devoted to teaching foreign languages to advanced learners. There were plenary sessions in the morning and debates in particular sections in the afternoons. Plenary sessions were obligatory for all the participants whereas sections were chosen according to interests by participants.

The sections were:
1. institutions of higher learning/universities, etc.
2. secondary schools
3. mass teaching
4. teaching scientific English, Russian, German, etc.
5. general problems
6. Polish as a foreign language.

The Symposium began on 17 November at 11:00 a.m. with the inaugural speech by Professor Jacek Fisiak, the President of the Polish Neophilological Society. Then, professor Franciszek Grucza from the Institute of Applied Linguistics, Warsaw University, spoke about the scientific picture of glottodidiacts; Dr. Janina Smolska, about modern tendencies in foreign language teaching; and Jan Lawendowski, M.A., about teaching Polish as a foreign language. In the afternoon in the section of teaching scientific English, Russian, German, etc; Dr. Jan Zaniewski spoke about linguistic and non-linguistic problems of teaching foreign languages to scientists; Roman Hajczuk, M.A., about teaching comprehension of foreign language specialized texts to advanced learners; Mr. David Evans, from the Warsaw branch of the British Council, about some problems in organizing English for Special Purposes courses; and Mr. Philip Prowse, also from the Warsaw branch of the British Council, about communication activities in the English classroom. In the evening, the participants could choose between going to the theater or to a banquet at the Staszic's Palace.

On 18 November, the plenary session began with Professor Grucaz's and Wanda Zorow's, M.A. speech on the results of the research done at the Institute of Applied Linguistics, Warsaw University on teaching foreign languages to students from various institutions of higher learning in Poland. Then Dr. Hanna Komorowska spoke about the research conducted at the INsittute of Curricula. In the section on teaching scientific English, Russian, German, etc. Oskar Chomicki spoke about the assumptions and realization of the experimental English course for scientific conferences; Dr. Antoni Prejbisz, about the typology of scientific texts as teaching materials; Behdan Wojtowicz and Janusz Gutkowski, M.A. about the effectiveness of foreign languge teaching with the use of the simulative recording. Dr. Zbigniew Nemewski wondered if the curriculum for teaching English to advanced learners should be a continuation or a specialization and Jerzy Sylwestrowicz spoke about directing of motivation of foreign language learning.

The Symposium was closed by Dr. Tadeusz Woznicki from the French Department of Warsaw University and Professor Jacek Fisiak.

* * *

SPECIAL ISSUES

A series of special issues of the Newsletter are in the works for the near future. Coming up is VESL in the USA, guest edited by Jodi Crandall. Following that will be ESP in Kuwait, guested by Bill Robinson and Clive Bruton. We will have a special on the 1979 EST Institute, participants willing, and Ron Cowan has promised a report on his recent trip to the People's Republic of China to investigate language needs there (as well as lecture on ESP). Further special issues are also scheduled for later in the year.

* * *

LSP, ROMANIA

Nicolae Bejan, University of Galati, has forwarded the Table of Contents of LIMBILE MODERNE IN SCOALA (Foreign/Modern Languages in Schools), published by the Romanian Filogical Society, Bucharest. It draws on papers delivered at a national conference on functional styles held at Constantia late last year.

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I. SPECIALIST LANGUAGES AND THE TEACHING OF FOREIGN LANGUAGES.

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VICTOR VASCENCO: Language, Metalanguage and Specialist Language ....
NICOLAE BEJAN: English for Special Purposes, An Important Register of Language..
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TEODORA CRISTEA: Towards a Semantically Oriented Grammar of Instrumental Languages ....
LUDMILA FARCAS, FLOAREA PASCOVICI, GALINA BADICA: An "Exception-free" Grammar for Polytechnics Students ....
GEORGETA PETRESCU: The Participial Attribute in Technical Language ....
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TIBERIU RUSU: The Teacher of Technical French and the Technical Expert ....
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ADELINA COVACI, VASILE COVACI: The International Character of Scientific Vocabulary .....
ALEXANDRA CUNIŢĂ: Remarks on the Teaching of Specialist French Vocabulary
MAHAI NEGRIDE: The Technique of Selecting & Presenting Specialist Vocabularies in Industrial Colleges ....
IOAN KOHN: The Use of Texts and Exercises in the All-round Training in German ....
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A. HÀRLĂOANU: Current Trends in the Syntax of Russian Economic Texts ....
OLGA GALAŢANU: The Pragmatic Dimension of the Language of Commerce
CORINA CILIANU-LASCU: Inchoative Verbs in the Language of Chemistry ....
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EUGEN BLÁNARU, ANATOL PEDESTRASU: Teaching the Lexis of Medical Russian ....

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bibliography

The following articles are newly available from the Clearinghouse. The price covers the cost of copying and postage; no profit accrues to the Clearinghouse from their dissemination.

Hajjaj, Ali H.S. "A Suggested Paper of a Tentative Approach to an English Language Teaching Module on Energy and Man". Paper submitted to Environmental Education Conference, Kuwait, April 1979. 31¢

_________. "A Tentative Approach to an English Language Teaching Module on Man and Natural Resources". Paper submitted to Environmental Education Conference, Kuwait, April 1979. 60¢

Salager, Francoise. "The Frequency Range Correlation and the Concept of Homogeneity". Universidad de Los Andes, Merida, Venezuela. 1978. 85¢

_________. Finite Verbal Forms in Technical Literature". ESP Newsletter #27, Corvallis, June, 1979. 75¢

van Naerssen, Margaret M. "Improv[illegible] English Medical Recordings by Foreign Medical Graduates". University of Southern Califo[illegible] August 1978. 85¢

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~ special issue ~

English for Specific Purposes

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FROM THE (GUEST) EDITOR:

Vocational ESL is a rapidly growing field, occasioned by the increasing recognition that adults acquiring a second language do so largely for instrumental reasons and that adult learning in general is most effective when it is learner-centered and relevant to the adult's other economic and social needs. General ESL courses involve a substantial commitment in time and a recognition that something tangible will accrue from that commitment: they require a belief in advanced education and a willingness to set aside other, often pressing, needs until one's English proficiency is improved and education is completed. However, many adults cannot devote several years to mastering a second language, especially when their first language is perfectly suited for many of their communications needs—at home, in the neighborhood, or at church. Rather, they are interested in English for vocational purposes, English which will help them get an entry-level job or enable them to participate in vocational training to get a better job. The growth in the number of programs, materials, and interest in Vocation ESL is largely the result of the growing belief in relevant adult education and the recognition of the need to deal with probelms which limited English-speaking adults—whether immigrant, refugee, or long-term resident—face in getting employment.

Just what constitutes Vocational ESL and what design a program follows can vary widely. For example, it can consist of vocation-specific English classes which run concomitantly with vocational training. It can be a Prevocational ESL program, teaching the linguistic and cultural skills required to get a job and to successfully function in it, leading to immediate employment in an entry-level job. It can be a part of a bilingual vocational training program which may teach skills in the first language, but also provide the English language equivalents. Or, it can be a Vocational ESL program which is part of an on-the-job training program.

What constitutes vocational ESL materials also varies widely. Some programs have developed job-specific vocabulary lists which are integrated into a general (usually structurally sequenced) ESL program. Others have interviewed job supervisors, vocational instructions, and employees, attempting to identify the specific topics, settings, and functions for English and developing materials which teach the most important functions and notions. Some have tape-recorded the language used on the job and attempted to assess the reading and writing demands of vocational textbooks and classroom activities, as well as of the job. However, the status of most of these materials is still uncertain. Few are widely available; most are program-specific, developed to meet local, parochial program needs. The greatest progress seems to be in Prevocational or Preemployment materials. We know much of what needs to be in these materials. Adults need to be able to fill out application forms, participate in interviews, respond to instructions, ask for information or clarification, and make small talk with fellow employees and their employers. They need to understand the language of safety, of processes, of general job responsibilities and rights, of paychecks and benefits, etc. However, appropriate Vocational ESL materials, for skilled, semi-skilled, or unskilled positions, are not common, especially for beginning or low intermediate ESL students. In fact, most ESP materials are written for intermediate or advanced ESL students seeking professional or highly technical jobs which require advanced education.

Some of the delay in creating good vocation-specific materials can be attributed to the difficulty in finding enought adults interested in the same vocation who are also at the same English proficiency level to warrant their use. One way of solving that problem is throught effective adaptation of existing adult ESL materials for several vocations. After providing initial practice with the more general ESL unit, the teacher can give those interested in clerical training a clerical adaptation of the same lesson, while those interested in auto mechanics, can receive an adaptation appropriate to the situations and language of auto mechanics.

This was the approach that we took with low intermediate ESL materials we developed at the National Indochinese Clearinghouse at the Center for Applied Linguistics. With the large influx of Indochinese refugees seeking employment, but finding their limited English a barrier, Indochinese Refugee Assistance Projects worked to provide effective ESL to adults who found their first language suitable for many of their needs and who often tired of the seemingly irrelevant nature of much of their English class. Classes which were not clearly job-related were often poorly attended; on the other hand, those which demonstrated that English classes would lead to employment found that adults perservered through the difficult task of learning English. Our adaptations of the Modulearn series, *English for the*

21st Century, are supplementary materials in prevocational, clerical, auto mechanics, and food services ESL.

Programs which had been in existence for some time benefitted from previous successes and learned from their failures. They found that job success required the adult not only to be able to understand and speak English, but to learn the cultural or social expectations accompanying communication with fellow workers, supervisors, and customers. The classroom could help adults to vary their language to meet differing situations and provide them a sheltered context in which they could practice using the language appropriately. The importance of being able to function appropriately on the job—to be able to use English to ask and give information, to request help, to respond to commands, to express attitudes—led us to developing a series of intermediate ESL materials using a notional/functional approach. These materials, for prevocational, clerical, and job survival purposes, are being developed to help make vocational ESL classes even more useful.

Much interesting work in adult ESL is being done in vocational ESL, as the following papers reveal. The first paper by Gustavo Gonzalez on "Developing the Bilingual Vocational Oral Proficiency Test" discusses the rationale for an integrative test of functional language for occupational purposes. It describes the measures taken to develop a test for screening adults for participation in bilingual vocational training and for measuring their progress during the program.

The second paper, "The Role of the Task Analyst in Occupational ESL" by Mark Terpin, describes how one program has bridged the gap between the ESL classroom and the world of work. The task analyst not only provides English language content for the ESL teacher or tutor, but also provides small assignments which require the employed limited-English-speaking adult to practice using English in meaningful ways and to enable the adult to become a source for the design of his/her own language program. Samples of these assignments are provided.

"Using Real-Life Skills and the Student's First Language in Prevocational ESL" was written by K. Lynn Savage, Ellen Lai-Shen Yeung, and Mamie How. It provides another look at the steps taken in developing Prevocational ESL materials. What makes these materials so interesting is their task analysis, the integration of language and occupational tasks, and the use of the adult's first language in defining difficult vocabulary or introducing cultural patterns such as attitudes or non-verbal communication.

The remainder of this issue is devoted to glimpses into several prevocational and vocational ESL programs. Unfortunately, space limitations make it impossible to provide more than a glance at some of the interesting features of these programs. However, since one of the functions of the ESP Clearinghouse is to identify researchers and practitioners in various areas of ESP, to facilitate a communication network, we have listed a contact person and an address for further information about each program.

NOTE: A review of various vocational ESL program designs and materials is included in JoAnn Crandall, Adult Vocational ESL, No. 22 of the Language in Education Series published by the Center for Applied Linguistics, Arlington, VA. 1979.

*DEVELOPING THE BILINGUAL VOCATIONAL ORAL PROFICIENCY TEST

by Gustavo Gonzalez

The measurement of English language proficiency of adults from non-speaking backgrounds has been limited for the most part to gauging the English language skills of college students from foreign countries. Interest in the English proficiency of adults in non-academic settings has been virtually nonexistent. The report that follows is an account of a test currently being developed to measure the English proficiency of adults in contexts other than academic.

The Bureau of Adult Education wanted a test which could screen potential students for participation in bilingual vocational eduction programs. The test is based on an integrative approach, that is, one which attempts to measure the integration of language knowledge and deals with language testing pragmatically. It determines the examinee's ability to receive or transmit information for some useful purpose. In this approach, language proficiency is defined in terms of whether or not (or to what degree) the person can operate effectively in real-life language situations (Oller, 1979).[1]

This approach is contrasted with the discrete-point approach, in which attention is focused on one point of grammar at a time. Individual test items are aimed at only one portion of a particular component of a grammar, such as phonology, syntax, or vocabulary, and only one skill—listening, speaking, reading or writing—is addressed at a time. The assumption is that a person's language proficiency can be adequately determined on the basis of his/her performance on subtests that artificially separate language skills and components of the total communication system, and that the sum of the separate measurements of subskills somehow is equal to language proficiency, but in the majority of cases, discrete-point tests do not reflect actual language usage.

We chose the integrative approach over the discrete-point because it more accurately reflects actual language usage in the vocational education setting. In addition, it allowed us to focus on the target group's ability to receive or transmit information for some useful end.

The Bilingual Vocational Oral Proficiency Test, is designed to 1) determine which persons should be enrolled in bilingual vocational educational programs (those that "fail" the test), and which have sufficient skills in English to perform adequately in a regular vocational education program: and 2) measure gains in English proficiency made during the training program through comparison of scores received on equivalent forms of the test at the beginning of the bilingual vocational education program and at the end. The test will be individually administered and will take approximately half an hour. The language forming the basis of the test will reflect the everyday reality of the vocational program participant in general vocational education contexts, not language specific to one vocation. Two equivalent forms will be developed and standardized on an adult and out-of-school youth population of persons of limited English speaking ability from three different language groups: Spanish, Chinese, and American Indian. Only listening and speaking skills will be measured.

In developing a test with these characteristics, we analyzed information from two major sources. Vocational curricula and vocational ESL lessons were reviewed to isolate major topics of vocational communication, key vocabulary, and instructional strategies. At the same time, observations of vocational instruction and shop interactions and interviews with vocational instructors were carried out and experts in the area of vocational education were consulted. Oral materials were analyzed to isolate vocational communication topics, steps in the work process, functions of the communication event, and informational priorities of instructors and supervisors. Part J bilingual vocational education projects from different parts of the country were requested to send tapes of the language used in everyday instructions in their shops. The goal of the analysis was to characterize the language skills needed by individuals to participate in and benefit from vocational training programs.

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[1] Oller, John W., Jr. 1979. Language Tests at School: A Pragmatic Approach. London: Longman Group, Ltd.

The identification of communication situations is of utmost importance for it delimits the communication context in which a vocational student is placed. According to our analyses, the follwing communication situations are common to all vocational areas: 1) determining what needs to be done; 2) assembling the necessary tools, equipment, materials; 3) performing the operation; 4) checking/testing to insure that job was done correctly; and 5) cleaning up.

Next we identified the language-processing tasks or topics involved in each situation. Under "determining what needs to be done," for example, we found such language-processing tasks as locating tools and equipment, verbs of getting, and physical characteristics of objects, among others. Under "performing the operation," we found such items as verbs of making and doing, quantity of objects, description of the process, and safety admonitions.

An analysis of the communication topics indicates that the communication in vocational education primarily involves seeking or imparting information necessary to do the work and makes use of three strategies: describing (enumerating or relating details and sequences of the event or objects), admonishing (correcting or guarding against), and asking (questioning or confirming).

The BVOPT test items focus exculsively on the skills of listening comprehension and speaking. Under the listening skill, for example, are found tasks such as the ability to comprehend names of work-essential tools, equipment, and materials; work-related locational directions; warnings and cautions; & instructions about the work process. Two item types will measure these skills: IMPERATIVE, in which the examinee is asked to perform an action (receiving a point if he performs it), and LISTENING COMPREHENSION, in which the examinee is presented with two sentences orally and is asked to decide if they are the same or not.

Many of the required language processing tasks consist of oral exchanges in which the client must comprehend oral information and respond orally, or initiate oral exchanges such as warnings or questions. A listening/speaking subtest will measure skills such as the ability to give reasons for work-related actions, to give evaluative statements referring to quality of work performed, to explain work-related needs, and to ask and answer work-related questions referring to time. Two types of items will comprise the listening/speaking subtest. The first is a simple QUESTION/ANSWER format and is typical of oral exchanges we have examined in actual vocational education communication sequences. It tests the person's ability to understand what is asked of him/her and to respond accordingly. The second type is known as ELICITED IMITATION and requires the examinee to repeat sentences presented on tape or by the examiner.

At present, the item-writing has been completed and the administration manual, test items, and visuals have been reviewed by test development specialists, linguists, psychometricians, and experts in vocational education. Items have been revised in accordance with the recommendations made by the reviewers. These revised items will form the item pool from which a number of items will be selected to devise two different forms of the test. Following the field tests and data analyses, the best items will be chosen to make up two equivalent forms. The final version of the test should be available for use by September 1, 1979. For further information contact: Gustavo Gonzalez; Resource Development Institute, Inc; 314 Highland Mall Blvd, Suite 450; Austin, TX. 78752.

THE ROLE OF THE TASK ANALYST IN OCCUPATIONAL ESL

by Mark Terpin

Although prevocational ESL material is available, there is much demand for a wider range of job-specific occupational English lessons. In an effort to meet this demand and to help the ESL refugee student maintain and upgrade his employment, Chemeketa Community College developed the position of task analyst.

The task analyst's main responsibility is to bridge the gap between the ESL classroom and the job, by collecting job-specific English and developing it into English lessons. He determines where the Indochinese refugees are working and then visits the job site. He then records the essential vocabulary and language structures and communicates this raw material to the ESL teachers. Together the ESL teachers and the task analyst can develop suitable lessons for classroom use or the task analyst can set up individual tutoring sessions with the refugee after the work day is over.

The task analyst, in asking the refugee for his place of employment and his supervisor's name, has found a good starting point for language instruction if the refugee cannot answer them. He can assign the refugee the activity of talking to a co-worker in order to find out his boss' name or have him ask the boss directly. (See the sample activities below.)

This activity serves many purposes. It identifies the work-site and contact person for the task analyst, but more important, it will also have broken the ice for the refugee to communicate with some of his co-workers who may be able to help him in the future. Moreover it will help the refugee understand the personal hierarchy in the strange new surroundings of an American place of employment.

The task analyst calls the supervisor, introduces the available service, and suggests the possibility of an on-site tour. Most employers are quite receptive to this suggestion once they understand that the goal is to help the refugee to communicate. While at the work site, the task analyst asks for a job description or a chronological, step-by-step description of the refugee's responsibilities from the time he arrives in the morning until he leaves at the end of the day. Working from this description, the task analyst is much better able to elicit specific problems from the employer. Many of the problems will not be communication problems; instead they will deal with work attitudes and performance: Is the refugee working fast enough? is he accurate? wasteful? does he work on his own initiative? If the employer will allow the task analyst to watch the refugee for a reasonable length of time (this will vary from job to job) he will be able to see how well the job description matches the actual work. The time spent in observation will also enable the task analyst to record the essential vocabulary and language structures.

Next the task analyst seeks to determine how well the refugee's view of his occupational responsibilities matches that of his employer. A survey consisting of general occupational questions can be used for this. Any question the refugee cannot answer can be drilled as a structure and vocabulary lesson. Other activities can be assigned based on the survey questions that the refugee had difficulty with. In addition to these communicative activities, language practice can be developed using pictures and the essential vocabulary collected at the work site.

If the ESL teacher, rather than the task analyst, is to assign and use the activiites and lessons, it is very important for that teacher to become familiar with the occupation. For this reason, communication between teachers and task analysts becomes essential. If the task analysts do the tutoring, the ESL teachers should still be informed of where the students work and what they do so that class instruction can be tailored more effectively to the refugee's individual needs.

The burden of communication is on the refugee. The natural inclination not to use the new language must be overcome if the student expects to become successful at his work. Within the context of an assignment, the new employee will have additional support that will encourage him to communicate with a stranger in a new language.

SAMPLE ACTIVITIES: The following suggestions for drills and activities come from an evaluation of problems that employers have indicated the refugees have with employment. Classroom drill and expansion should precede the assignment of the acutal activity.

I. The refugee should know without a doubt who is his supervisor and who he should take directions from.

A. Have the refugee practice the following dialogue with three different co-workers.

"Hi. My name is ______________."
"What's yours?"
"What's our supervisor's name?"
"Thanks."

The classroom drill should include contractions and possessive pronouns. The refugee should also be aware of the appropriate time to enter into the dialogue.

Helping the refugee overcome his reluctance to ask questions when a problem arises is one of the most important tasks the teacher faces. If the refugee cannot solve a work-related problem on his own, he must realize that he needs to get help immediately. He must learn that asking for help is not a sign of poor work performance.

II. The refugee should be able to ask two important questions:

"(Name)___, can you help me?
"(Name)___, how do I do this?

A. Have the refugee find three things in the work site that he isn't familiar with and have him ask a co-worker:

"(Name)___, can you help me?"
"What's this?"

The classroom drill should include "Where, "Who", and "How" questions. e.g.

"Who's the ___(supervisor's name)?"
"Where's the personnel office?"

Many employers indicate that the communication problem becomes most noticeable when an irregularity in the everyday work routine arises. The refugee should be prepared for such irregularities as an extra day off, shorter working hours, medical appointments, etc.

III. The refugee should be able to act appropriately in the following situations.

A. You have a toothache and you want to make a dentist appointment. What time should you make the appointment for? Who should you tell at work? When should you tell him?

Answers: 1. Make the appointment early in the morning and go to work afterwards. Make it for your lunch hour and go back to work. Make it for late in the afternoon and work most of the day.

2. Notify the personnel office or your supervisor.

3. As soon as possible after the appointment is made.

The classroom drill should include polite requests, the use of modals, and "or" constructions. Practicing appropriate dialogues can also be done.

B. One morning your car breaks down and you're stuck at home. Who do you call?
Do you try to get to work? How?

Answers: 1. Call the personnel office.
2. Try to get to work.

For further information contact: Mark Terpin; Task Analyst; Chemeketa Community College; Adult Learning Center; 4000 Lancaster Drive; N.E., Bldg. 3; Salem, OR. 97309.

USING REAL-LIFE SKILLS AND THE STUDENT'S FIRST LANGUAGE IN PREVOCATIONAL ESL

by K. Lynn Savage, Ellen Lai-Shen Yeung, & Mamie How

Chinatown Resources Development Center in San Francisco began serving adult immigrants seeking jobs in 1968, first receiving DOL, then MDTA, and now CETA funds. Because of limited funds, each year the center has had to turn away increasing numbers of immigrants. In an attempt to reach more immigrants, the center staff applied for 309 money to develop a general occupational knowledge curriculum which would be appropriate for low-level ESL classes financed through Adult Basic Education monies.

The projected final product will be three cycles of six to eight units each. Each unit focuses on one job-getting or job-keeping skill applicable across vocations (e.g., filling out an application form, interpreting safety laws, reading the want ads, asking appropriate questions at an interview, responding appropriately to an evaluation form). Each unit takes approximately 20 to 25 hours to complete, and each cycle approximately one semester. The first two cycles emphasize beginning level ESL structures usually taught in the first year. The third cycle focuses on lower-intermediate level structures usually taught in the first half of the second year.

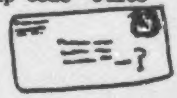
To accomplish instruction in skills and concepts as well as low level ESL structures, the student learning materials are divided into three components: target language (grammar and vocabulary), skills (real-life tasks), and native language (explanation of essential cognitive information too complex to explain in the target language). Examples from the Personal Data unit (unit one of cycle one) illustrate these components.

TARGET LANGUAGE COMPONENT: Structures necessary to communicate personal data include "what" questions, the verb "to be", personal pronouns as subjects, and possessive adjectives. The necessary vocabulary includes titles (Mr., Mrs., Miss, Ms.), numbers used in identification (alien registration, driver's license), dates, and terminology in talking about names (first name, middle name, last name). Each conversation focuses on one or two of these objectives. For example, the third conversation in the unit provides practice with "what:, the possessive pronoun "your", and numbers used in identification.

WHAT'S MISSING? A is a secretary. B is an applicant. A is looking at B's application form. It isn't complete. A tells B:

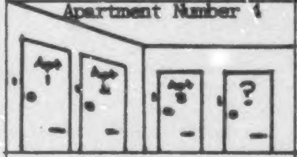
A: Excuse me, but your application isn't complete.
B: Oh? What's missing?
A: Your zip code.
B: Sorry. It's 94103.

Zip Code 94103

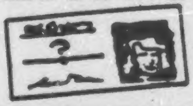


Area Code 415

Apartment Number 4



Alien Registration Number A 56 008 397



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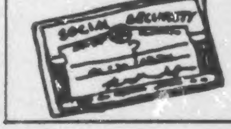
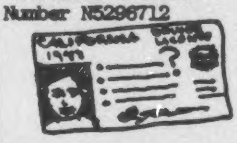


Driver's License Number N5296712



SKILLS COMPONENT: Each unit includes one major, or culminating, task and several minor tasks or subskills needed for that major task. For example, in order to complete the personal data section of an application form, students need to be able to follow directions (or cultural conventions) in ordering names, addresses, and dates; to mark choices appropriately (e.g., check, circle, underline, cross out), and to utilize space appropriately (write on the line, write in different sized boxes).

The third task provides practice utilizing space appropriately.

DIRECTIONS: READ. THEN WRITE.

There are many ways to fill out forms.

1. Some forms want you to print on the line:
   Example: Mary Chan
2. Some forms want you to fill in the box:
   Example: Name: MARY CHAN
3. Some forms want you to print one letter in each box. Example:
   Name: MARY CHAN

FILL OUT THE FORMS BELOW FOR YOURSELF. PLEASE PRINT.

1
ADDRESS ____________________
number street apt.
____
city state zip
Telephone: ( ) ____________________
area code

2
Driver's License Number:

Social Security Number:

3
Alien Registration Number: ☐☐☐-☐☐☐-☐☐☐☐☐
Social Security Number: ☐☐☐-☐☐-☐☐☐☐☐☐

INTEGRATION OF LANGUAGE SKILLS: Each unit contains five or six conversations and four to six tasks. The progression is from conversation to task. For example, the conversation "What's Missing?" focuses on identification numbers in different sized boxes and spaces. The conversations teach the language necessary to perform the tasks. Task sheets provide the immediate "pay off" for learning the language skills.

NATIVE LANGUAGE COMPONENT: Each unit has a supplement written in the student's native language. (Although it is in the Instructor's Guide in English, the students receive it only in their own language.) It explains the learning objectives of the unit and their importance, & also provides cultural notes for each conversation. The cultural notes, which form the bulk of the native language component, explain concepts in the areas of verbal communication (vocabulary and notional/functional items), non-verbal communication (body language), values, and thinking patterns.

Here are two sample notes - one to explain "zip code" (a vocabulary item carrying a non-universal concept) and one to explain the use of "excuse me" (a notional/functional item):

PERSONAL DATA
Native Language Component
(Translation)

zip code - A zip code has five digits. The first digit indicates the geographic area. The second and third digits indicate the city, and the last two digits indicate the delivery station. (e.g., in the zip code 94109, the first 9 indicates the west coast, 41 indicates San Francisco, and 09 indicates one area of San Francisco.

attention getter - Besides being used as an apology "excuse me" can also be used to attract someone's attention, and is more polite than saying "Hey you" or pointing with your finger.

The curriculum is still in its experimental stages. Field testing of the first cycle has been completed with Chinese, Spanish, Indochinese (Vietnamese, Laotian, Cambodian), and Korean language groups. Pilot testing of the second cycle with Chinese has been completed and field testing with Chinese, Spanish, and Indochinese language groups will begin in September. Pilot testing of the third cycle also begins in the fall. Revisions based on field testing should be completed in the spring of 1980, after which the materials are scheduled for dissemination.

For additional information contact the project director: David Hemphill, Education Coordinator, Chinatown Resources Development Center, 615 Grant Ave., 4th floor, San Francisco, CA. 94108

THE HAWAII IRAP PROGRAM

Since its inception in 1976, the program has undergone a number of changes, reflecting the changing needs of the Indochinese refugees. With the English proficiency steadily decreasing among the newer refugees, one approach has been to provide instruction in the vocational class in the student's first language, with on-site supplementary English designed to reinforce what has been learned during training. For example, the Food Preparation Program, involving a practicum at the YWCA Breadline Restaurant, was designed to help non- or limited-English speakers attain marketable skills. The program taught the skills in the first language, and then provided practice in using these skills with English speakers, & also built a vocabulary of English food related terms and phrases. The goal was early placement in good jobs, since once on the job, the refugee's English improves markedly. Many adults, once placed, continue to return for more English instruction.

Another interesting program is designed for older women or women with young children. Women in Training (WIT) uses excursions to local sites and language practice based on reading shopping maps, visiting restaurants, and homemaking as its basis.

In addition, the refugees, who are either illiterate or have limited education also receive an orientation program, conducted bilingually, which discusses jobs available in Hawaii and on the mainland and helps them choose a career and deal with daily survival. For further information contact: Michael E. Duncan, OJT Vocational Training Contractor, Indo-Chinese Refugee Employment Project, 838 South Berentia Street, Suite 308, Honolulu, HA. 96813

THE OAKLAND CHINESE COMMUNITY COUNCIL MANPOWER TRAINING PROGRAM

The OCCC Manpower Training Program, funded by CETA, provides language and pre-employment training, vocational guidance, and direct placement services to economically disadvantaged immigrant Chinese adults. The program seeks to provide them with language skills, using prevocational and vocational contexts, as well as an orientation to the American world of work, including skills for getting a job. It also helps those immigrants with marketable or transferable skills and experiences to use them in the American labor market.

The curriculum is divided into two areas: Clerical & Production. Classes are taught both bilingually and monolingually. Trainees in the monolingual class receive training for 40 weeks, while those in bilingual classes remain for 24.

The program has been successful in penetrating into part of the labor market where there has been historically heavy underutilization of Chinese. Trainees are placed as bank tellers, clerks, electronic electrical assemblers, warehousemen, production workers, machinists, general laborers, packers, janitors, and in hotel maintenance. For further information contact: Pinkie Laye, Coordinator of Education, Oakland Chinese Community Council, 919 Harrison Street, Oakland, CA. 94607.

THE ARLINTON INDOCHINESE EDUCATION PROGRAM

At the Arlington Career Center, a new facility shared by IRAP and CETA Programs, vocational training programs are offered while the student is simultaneously enrolled in English language classes. Students are counseled about employment opportunities in the area, pay, and the chance for career mobility. They may choose to study Auto Mechanics, Consumer Electronics, Building Trades, Clerical, Keypunch, Commercial Sewing, Electronics Assembly, Hotel-Motel Services, and Food Services. Some refugees learn one field, and when their English improves, train in another, more desirable one.

Classes of English for special purposes are held for 1 hour a day, 4 to 5 days per week, and continue for the entire vocational training program. The ESL teacher works with the vocational teacher in developing appropriate materials, teaches the ESP class, & sometimes works in the vocational class with that teacher when a student has a severe problem with English. With the increasingly lower levels of skills and English of the more recent refugees, the program has begun accepting students for vocational training whose English is below that required for employment. It is delaying placement until the adult understands and can be understood, but is providing them with vocational training. The program finds lack of proficiency in English to be the single most important problem facing refugees; when they achieve competence in English, they solve many of the other problems facing them.

THE FORT WORTH SOUTHEAST ASIAN REFUGEE PROGRAM

At the beginning of this program the curriculum was aimed at basic survival English, but its focus has increasingly turned to vocational ESL. Employment skills are taught in all but the most basic ESL levels, including a lesson on where to look for jobs, how to make applications and interview, and how to adjust to a new job. In addition, those desiring skilled jobs may enroll in Upholstery, Mechanics, Welding, Machinery, Cooking, and Meat Processing vocational training programs. Adults develop a career plan upon arriving at the open entry-open exit program; and job follow-up is done for 90 days after a position is secured. The program stresses in-service training for teachers and teacher aides and makes quarterly visits into students' homes to help teachers and aides understand the family circumstances of each refugee.

Businessmen who employ adults having been through this program view the program as a valuable source of prospective employees and welcome the services the program offers in job orientation. For further information contact: Sally Threlkeld, Adult Education Center, For Worth Independent School District, 705 S. Henderson, Ft. Worth, TX. 76104.

OCCUPATION-SPECIFIC VESL AT VALLEY VOCATION CENTER

At VVC, ESL and vocational programs have been successfully integrated in an adult education program which offers Vocational ESL support classes for vocational training. Initially, the Center tried using ESL aides and translators in the vocational classrooms, but with limited success. Students with severe language handicaps encountered difficulty in their training programs; those completing their training were having difficulty on the job.

The VESL program serves beginning level ESL students in such areas as Welding and Upholstery; however, for some vocations, such as Respiratory Therapy, students need some English proficiency before enrolling. For the most part, vocational instructors have found that students who speak little or no English can function in vocational classes if they are supported by voca-

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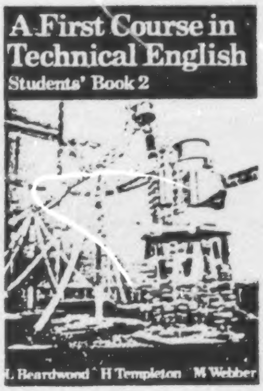
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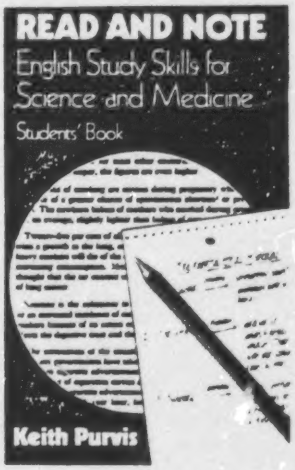
Read and Note

English Study Skills for Science and Medicine

KEITH PURVIS



This course is for science students, particularly students of medicine, pharmacology, and biology, who are studying at colleges or universities where English is the medium of instruction. It is designed to help students to effectively come to grips with the study skills of reading scientific texts in English and making notes from them.

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Classes are being offered in Auto Body Repair, Auto Mechanics, Upholstery, Welding, Respiratory Therapy, Cosmetology, and TELE-VESL (business phone usage). The classes range from 1-5 hours of instruction a week, typically meeting for an hour a day, often in the vocational classroom or shop. In addition, students attend a general ESL class for 2-4 hours a day.

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For further information contact: Nick Kremer, VESL Curriculum Developer, Valley Vocational Center, 15389 East Proctor Avenue, City of Industry, California 91744.

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AUGUST, 1979
ISSUE 29

••SPECIAL ISSUE••

English for Specific Purposes

- KUWAIT UNIVERSITY -
—Guest Editors—
••BILL ROBINSON & CLIVE BRUTON••

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FROM THE EDITOR

Kuwait University's Language Centre employs nearly 100 instructors in 6 Units teaching Arabic, English, French and Russian as foreign languages. English is taught in the Colleges of Arts, Commerce, Engineering, Medicine (although not as part of the LC) and Science, and it is the medium of instruction in these last three colleges.

The following papers give a hint not only of the amount of original materials writing that goes on at KU, but also of the thoughtful adaptation of already existing materials, since published materials cannot, by definition, cater for a specific teacher's students in a specific situation.

Those who are interested in seeing other examples of our work, can write for a copy of the journal of the LC, "Al-Manakh", which is available from:

The Editor, "Al-Manakh"
The Language Centre
Kuwait University
P.O. Box 5486
Adeiliyah
KUWAIT

LEVELS OF QUESTIONING:
TEACHING CREATIVE THINKING THROUGH ESP

Diana E. Adams Smith MSSD
Faculty of Medicine

English language instructors in the Arab world rapidly become aware of a major problem resulting from the emphasis in the secondary schools laid on memorisation. Students arriving at the university are capable of memorising anything, & so will do so, given half a chance. The implications of this situation cause most ESP teachers concern, not only for instruction in general, but especially for the training of engineers, scientists and physicians, all of whom require skills in problem-solving, deductive thinking & evaluation far beyond mere rote learning.

A useful model for anyone trying to develop materials to help students learn to think is provided in the Taxonomy of Educatonal Objectives, edited by B.S. Bloom.[1] In this book an attempt is made to define a sequence of categories of thinking that encompass all intellectual objectives in education. They include knowledge, comprehension, application, analysis, synthesis and evaluation. Morris M. Sanders[2], re-naming the category of "knowledge" "memory" and subdividing "comprehension" into "translation" and "interpretation" gives the following preliminary definitions.

1. Memory: the recall or recognition of information.
2. Translation: changing information into a different symbolic form or language.
3. Interpretation: the discovery of relationships among facts, generalizations, definitions, values and skills.
4. Application: solving a lifelike problem that requires the identification of the issue and the selection and use of appropriate generalizations & skills.
5. Analysis: solving a problem in the light of conscious knowledge of the parts and forms of thinking.
6. Synthesis: solving a problem that requires original, creative thinking.
7. Evaluation: making a judgement of good or bad, right or wrong, according to standards designated by the student.

Since the categories are sequential and cumulative (e.g. a problem-solving exercise classified as application also involves memory, translation & interpretation), it is seldom profitable to confront a student with an advanced exercise in synthesis or evaluation until he has had some practice in the intermediate phases. To each category of thinking behaviour required of the student there corresponds a specific type of questioning. In other words, in order to elicit a response at the desired level, it is necessary to ask the right question. Questions for each of the categories might begin with the following words: 1. Memory: "List... describe... what...?" 2. Translation: "tell in your own words... draw a graph showing the information contained in the paragraph..." 3. Interpretation: "compare and contrast... explain the relationship between... give evidence for..." 4. Application: "demonstrate that... show how you might use... consider the implications of..." 5. Analysis: "what are the causes... specify the conditions necessary for..." 6. Synthesis: "design ...what hypothesis can you suggest for... what would happen if...?" 7. Evaluation: "evaluate... is the information accurate... which do you think is more likely...?

The most cursory examination of many ESP materials shows that almost all questions asked are at the level of information retrieval (memory) and information transfer (translation), the two lowest categories. For example[3]

> The skin is the outer covering of the body. It consists of two coats: the epidermis or cuticle, and the dermis or corium. Beneath these, there is a layer of adipose tissue which connects the skin to the underlying structures. This layer is known as the subcutaneous layer.
>
> A. 1. Which two layers does the skin consist of?
>   2. Which layer connects the skin to the underlying structure?
>
> B. Label the diagram.

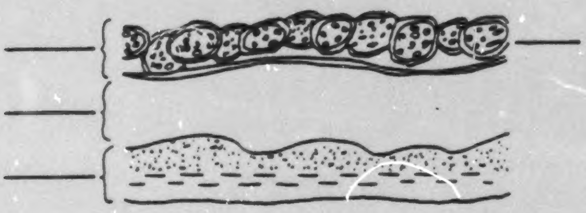

Diagram 1. Levels of Questioning

Where a passage is factual, as it is here, & the purpose of using it is primarily to teach the information it contains, a strong case can be made for using memory questions. Apart from other considerations, the retention of knowledge is an essential basis for other levels of thinking. The second exercise, requiring the labelling of a diagram, is an example of translation and a useful strategy for checking comprehension. However, the teacher needs to be aware that the questions on this passage are limited to the lower levels of thinking; they contain nothing to extend the student's thought processes.

Almost any idea can be taught in several ways featuring several levels of thinking. In the following example, questions based on a model passage have been constructed on each level of thinking.

HEAT LOSS FROM THE HUMAN BODY

Heat loss by sweating depends on the fact that when a liquid evaporates, it absorbs an enormous quantity of heat from its surroundings. In the case of water, this amounts to 2256 j for every millilitre that evaporates. Therefore, when 1 ml. of sweat evaporates, a great deal of heat is absorbed from the surface of the body in contact with it. This heat transfer occurs even if the environment is hotter than the body.

Two factors affect the rate of evaporation of sweat, and therefore the effectiveness of sweating as a method of cooling the body. The first is the amount of movement of air surrounding the body. The second is the amount of water vapour in the air which surrounds the body.

When air moves over the surface of water, the amount of evaporation is greatly increased. This is why housewives prefer to hang out their washing on windy days: it dries more quickly than on still days. For the same reason, sweat evaporates very rapidly on windy days, and the rate of heat loss by sweating is much more than on a still day. This accounts for the fact that hot, still days are much less comfortable than hot, windy days. In contrast, the sweat evaporates very rapidly on a hot windy days, and cools the body quickly and effectively.

The second factor that affects the rate of evaporation of sweat is the amount of water vapour in the air, that is, the humidity. When air is carrying the maximum amount of water vapour that it can hold, it is said to be 100 per cent saturated with water vapour. The relative humidity of the air is said to be 100 percent. Under these conditions the air cannot carry any more water, so no water can evaporate. When the relative humidity is high, therefore, sweat cannot evaporate. Instead, it forms large drops and runs off your skin without cooling you.

When the air is very dry and carries no water at all, the relative humidity is said to be 0%. It is obvious that under these conditions, evaporation will be much more rapid. Therefore, sweating will be much more effective as a method of losing heat from the body. On a hot, dry day, sweat evaporates as soon as it is formed, and you feel reasonably cool even though the temperature of your environment is very high.

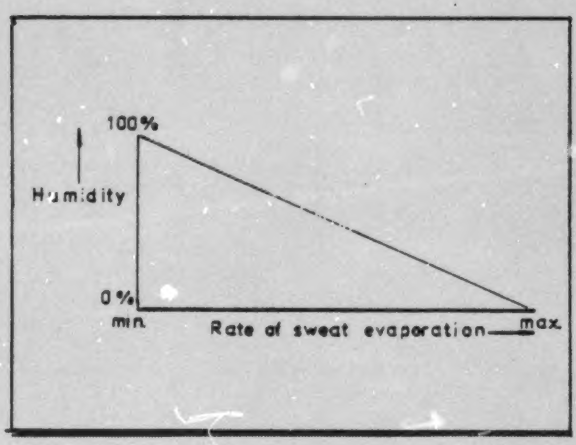

Fig. 1. The more humid it is the smaller is heat loss due to the evaporation of sweat.

Adapted from D.F. Horrobin, Essential Physics, Chemistry and Biology[4].

1. Memory: without referring back to the passage, answer the following question.

   What are the factors that affect the rate of evaporation of sweat?

2. Translation:

   Draw a simple graph to show the relation between the amount of air movement and the rate of sweat evaporation.

3. Interpretation:

   a) What is the relationship between heat loss and environmental temperature?

   b) Compare Fig. 1 and the graph you draw in answer to question 2.

4. Application:

   During which of the following weather conditions would you expect (i) the highest incident (ii) the lowest incidence of heat stroke?
   Give reasons.

Maxium Temperature	Humidity	Wind Velocity
105	92%	zero
95	10%	15 m.p.h.
100	50%	5 m.p.h.
110	0%	20 m.p.h.

5. Analysis:

   a) Explain how heat transfer occurs when the environmental temperature exceeds 99°F.

   b) Analyse the reasoning in the following statement: "You do not need to drink so much when it is dry, as the moisture in the air helps to keep you cool."

6. Synthesis:

   Design a heat stroke trauma unit for a Kuwait hospital.

7. Evaluation:

   a) Decide which climate is more dangerous to health; that of southern Iraq in summer or of Alaska in winter.

   b) Evaluate the care received by heat-stroke victims in Kuwait, and suggest measures for improving it.

These examples show that a teacher can compose questions that require students to use ideas instead of simply remembering them. Such an approach should improve the intellectual atmosphere of the classroom, and may provide the beginnings of the thinking skills discussed here.

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[2]Norris M. Sanders, Classroom Questions: What Kinds? N.Y: Harper and Row, 1966.

[3]Adapted from David Austin and Tim Corsfield, English for Nurses: London, Longman, 1976.

[4]D.F. Horrobin, Essential Physics, Chemistry and Biology: Lancaster: MTP Press, 1971.

TECHNICAL WRITING FOR ENGINEERING STUDENTS

Clive Bruton, ELU Science

The final English Language course taken by Engineering students at Kuwait University is a technical writing course, Course 221. This course is taken by students who are in their second or third year in the College of Engineering. The course is intended to prepare students for the semester reports they will be required to write in their Engineering studies. The course uses Technical Report Writing Today by Steven Pauley[1] and a variety of materials produced by members of the Engineering English Language Unit[2]. The content has been determined in part on the basis of a questionnaire administered to the Engineering lecturers. In the first part of the course students are made aware of the stylistic requirements of technical writing—the need for economy, clarity, precision—and of the need to identify the audience and plan the report accordingly. They are then instructed in the writing of (1) laboratory reports, (2) recommendation reports, (3) manuals, and (4) research reports. Manual writing is discussed elsewhere in this newsletter: I should like to concentrate on two other components of 221, recommendation reports and research reports.

RECOMMENDATION REPORTS:

PROCEDURE Students began by considering the four steps involved in the preparation of a recommendation report: (i) Collection of data; (ii) Analysis of data; (iii) Presentation of data; and (iv) Interpretation of data.

Various methods of data collection were discussed, e.g. observation, interviewing. Analysis of data required the selection of appropriate criteria since these criteria would form the bases for the recommendation.

Presentation involved decisions about the use of visuals while the final step required the integration of data with the writer's interpretation of it.

The students were then given an assignment in which they were given information about a problem in a factory and were required to make a recommendation on the basis of the information they were provided with.

It was felt that such an assignment was suitable as an introductory exercise. However, it was not wholly satisfactory because:

(i) it did not involve the students in data collection;
(ii) the students' contribution to the exercise was therefore too limited;
(iii) the criteria for the analysis of the data were self-evident;

(iv) the students could not relate to the problem or its solution.

A further assignment was therefore devised. It was decided to split the students up into pairs and to require them to go out and collect the data on some device: (i) that was available in Kuwait; (ii) about which data would be readily accessible; and (iii) that might prove interesting to the students and be within their (and the language teacher's) experience.

Each pair of students was presented with a hypothetical situation, for example, "Mr. Allen is an expatriate site engineer working in Kuwait. He has a wife and two children. His work requires him to spend time in the office and on site in the desert where there are no roads." They were given 2 or 3 cars to collect data about. The assignment was to write a recommendation report on the basis of their findings.

Before they went out to interview car dealers and collect brochures, etc. a class was spent discussing what criteria might be relevant to the assignment. Was the availability of credit facilities an important criterion? The availability & cost of spare parts? Petrol consumption? Performance?

Two weeks were allotted for the completion of the reports: students were told they could come and consult the staff about any problems they encountered during this period. At the end of this time the reports were handed in and graded.

DISCUSSION In general the reports were good. Suprisingly the students had without exception collected a large amount of data. Two noteworthy points emerged. The first concerned the use of illustrations, tables, etc. Often such visual material was included merely for the sake of it without being referred to in the report. Where tables were referred to, they were often included in the wrong place: for example, a table might appear on p.2 of the report and not be referred to until p.5.

Secondly, an interesting fact emerged concerning the most important part of the report, the interpretation of data. Some students found it difficult to integrate the data with their prejudices: the norms/opinions of the society tended to impinge. Thus, while an analysis of the comparative merits of a Chevrolet and a Buick would suggest that the Chevrolet should be chosen for the stated purpose, the Buick is more highly thought of in Kuwait and would therefore be recommended in spite of the evidence.

RESEARCH REPORTS:

PROCEDURE As the final assignment for the semester and instead of an end-of-semester exam, each student was required to submit a Research Report of approximately 2000 words. Such a report would require extended data collection, particularly from library resources. In this way, practical use was made of the library unit included earlier in the course. At that stage students had been introduced to the library and its cataloguing system and had been given exercises that required them to go and find books, articles, etc. in the library. Now they had to find material relevant to the topic of their research report.

Students were allowed to choose any topic, provided it was related to engineering and technology, and was acceptable to the teacher. A rigid schedule was drawn up which all students were required to adhere to:

e.g.
May 13 - 17 - Students discuss assignment with teacher.
May 17 - Students to inform teacher of chosen topic.
May 20 - Students to prepare Bibliography and Outline.
May 22 - Deadline for completed Bibliography and Outline to be handed in.
May 27 - Deadline for draft of Introduction to be handed in.
- Students continue work on draft of report.
June 5 - Deadline for completed draft. Students begin writing up final draft.
June 10 - Deadline for completed assignment.
June 12 & 14 - Orals.

It was felt necessary to draw up such a schedule to ensure that all students finished the project on time and to keep a check on their progress. The students, who are often very "flexible" when it comes to meeting deadlines, were able to keep to the time-table.

The final stage of the project was a 15-minute viva in which the student was required to both summarize his report and then be prepared to answer questions on it. The viva panel consisted of 2 teachers from the English Language Unit (one of whom was the chairman) and an Engineering lecturer.

DISCUSSION Students were required to get the teacher's agreement to the choice of topic. It was found that most students chose a topic that was far too general and could not be treated in a report of 2000 words. Thus, a student might want to write about "Concrete" or "The Uses of Solar Energy": teachers were able to force such a student to limit his report to, for example, "Problems in Concreting in Kuwait" or "A Feasibility Study on the Use of Solar Energy for Heating and Cooling in Kuwait."

It was felt to be important to involve the lecturing staff of the College of Engineering in the course. Thus they were on the viva panels and students were informed of this: this participation served three purposes. Firstly, it ensured that the Engineering lecturers saw what the English Language Unit was teaching Engineering students and what kind of work these students were submitting. Secondly, it ensured that someone with the right scientific/technical qualifications read the students' reports and could determine the scientific/technical authenticity of the reports. Thirdly, the students were impressed by the fact that their "subject" lecturers were involved: it was now no longer merely an exercise done for the English Language Unit. It was a "real" project. This liaison proved most fruitful and rewarding.

The viva itself was a useful addition to the actual writing of the report. There was always a danger that students would simply copy from sources without attributing them. While in most cases such copying was fairly obvious, this was not always so: in the viva it soon became clear whether a student knew what he was talking about or not. Moreover, the students themselves felt it useful to be required to talk about a piece of work they had done and if necessary, to defend their conclusions or recommendations.

* * *

-- BOX KITES --

James B. Herbolich
ELU Engineering

INTRODUCTION This article concerns itself with one aspect of course 221, manual writing, and will describe the box kite project, which was successfully carried out by the English 221 students.

PREPARATION Accepting that, in order to write a manual one must "understand the mechanism"[1], it was decided the students should actually construct something, which had to be simple because only 2½ weeks were allotted to the Manual component of the course. The "mechanism" should be: (1) relatively new to the students; (2) related to a field of Engineering; (3) a device which allowed the attainment of new lexis; (4) a device which actually would operate; and (5) enjoyable to construct and test.

It was decided that the English 221 students would construct box kites.

PRESENTATION The students were first instructed to read chapter 13, in Pauley. The chapter was discussed in class and a general format for their manuals was decided upon.

The students were then told that their manuals would be entitled "A Manual for Constructing a Box Kite." Most of the students were totally unfamiliar with the term "box kite", so they were given a library research exercise[2] in which they had to find: (1) a definition of the box kite; (2) the inventor of the first box kite; (3) alternative names for the box kite; (4) scientific uses of the box kite; and (5) a labelled illustration of a box kite. In the next class the student presented and discussed their findings on the box kite and were now able to expand their basic outline for writing the manual. The following outline was agreed upon:

- A Manual for Constructing a Box Kite -

- 1.0 Title Page
- 2.0 Table of Contents
- 3.0 List of Illustrations
- 4.0 Introduction
  - 4.1 Purpose
  - 4.2 Scope
- 5.0 General Description
  - 5.1 Kites (in General)
  - 5.2 Box Kites
    - 5.2.1 Inventor
    - 5.2.2 Uses
    - 5.2.3 Description/Illustration
- 6.0 Detailed Description
  - 6.1 Frame
    - 6.1.1 Struts
    - 6.1.2 Braces
  - 6.2 Cover
  - 6.3 Bridle
- 7.0 Assembly
- 8.0 Testing and Adjustments
- 9.0 Bibliography

At this time the students were also given two handouts which contained various bits of information concerning box kites, since the Engineering Library did not offer an abundance of literature on box kites. They were told that they could work in pairs and should take detailed notes and make drawings while constructing the kites. To further encourage motivation for the project the students were told that the box kites had to fly and that the instructors would be present to witness the "launchings."

PROGRESS After a week, the class met again to discuss any problems they were having either with constructing the box kite or writing the manual.

Many students had already obtained the materials and had done further research on box kites (i.e. they were searching for complete instructions on how to build the box kites. Fortunately, within the Engineering and Science Libraries, only the barest essentials could be found. A few students did find relevant books in book stores.)

Some students had already constructed their box kites, but they did not fly. This was mainly due to (1) the struts being too heavy; (2) poor supporting braces; (3) incorrect bridle attachment.

During this class, various points in writing the manuals were given to the students:

---

[1] Pauley, Steven. Technical Report Writing Today. Houghton Mifflin Co. USA, 1973.

[2] The materials for Course 221 have been produced by (in alphabetical order) Dave Blackie, Clive Bruton, Len Eldridge, Jim Herbolich, Noel Simon, William Starkey.

(1) The detailed description of the box kite parts should give the kind material used (bamboo, aluminium, balsa wood, plywood); the dimensions of the struts, braces, and cover; the kind of cover material used (nylon, tracing paper, wrapping paper, crepe paper) and the colour of the cover material.

(2) The box kite the instructors would inspect had to correspond exactly with the instructions in the manual.

(3) The assembly instructions had to be written in the active voice, imperative mood.

(4) The testing and adjustment section had to discuss the attempt to fly the box kite and, if the attempt was initially unsuccessful, to state the adjustments which were then made.

(5) The manuals had to contain illustrations, properly labelled, to help clarify written points in the manual.

ROUGH DRAFTS After a week and a half students were required to hand in a complete rough draft of their manuals. These were corrected for mistakes in format and grammar and returned to the students ungraded[3]. They were told to hand in the final versions of the manuals in the next class.

FINAL COPIES The completed manuals were handed in and graded. In general, the manuals, which ran between 9 and 12 pages, were given grades of A or B, "very good" to "excellent".

Few common grammar mistakes were evident in the manuals; however, two are worth noting. In giving the dimensions of a strut or brace, the students repeatedly confused and mixed nouns and adjectives within a sentence: "The strut is 50 mm. in length, 5 mm. wide and 5 mm. thickness." Secondly, most of the students did not know the past tense of "fly" e.g. "The box kite flied the first time."

With the illustrations, three problems were noted. Firstly, illustrations were put in the manuals but were not referred to in the text. Secondly, the illustrations were not given titles; a student would label an illustration "Figure 3" instead of "Figure 3. Braces." Thirdly, the arrows going from the label to the illustration often point to the label instead of to the part of the box kite.

FLYING THE BOX KITES

On a clear, but windy day, the 50 English 221 students, instructors and on-lookers gathered to fly the 25 completed box kites. All the kites were measured to determine the smallest and largest kites. At the same time, the teachers noted the box kites they considered the "best looking". The smallest box kite which flew was 32 x 32 x 65 cm. while the largest flying box kite was 42 x 58 x 120 cm. The "best looking" box kite was made of bamboo painted black with copper strips glued to the struts to reflect the sunlight when flying. The best performing box kite, which was the only one to have the cover sewn to the frame, was chosen because of its stability when flying and because of the height it flew. (It would have kept on going but they ran out of string.)

All the students then tested their box kites at the same time. The box kites were launched! Some did not move. Some took off, but crashed. Most of them, to the satisfaction of the students and teachers, "flied" and "flied".

[1] Pauley, 232. See bibliography of previous article.

[2] Handout 8, Course 221, devised by William Starkey.

[3] For a discussion of student errors see the section entitled "Final Copies."

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ISSUE 30
SEPTEMBER 1979

English for Specific Purposes

KARL DROBNIC, EDITOR
LYNNE STINNETT, PRODUCTION
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OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331

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FROM THE EDITOR:

RELC SEMINAR

The Southeast Asian Ministers of Education Organizaton (SEAMO) Regional Language Centre (RELC) will hold its 15th Regional Seminar, 21-25 April 1980, in Singapore. The Theme of the Seminar is "Evaluation and Measurement of Language Competence and Performance".

The objectives of the seminar are:

To review current methods of testing language competence and performance;

To consider research in the field of language testing and its relationship to language teaching;

To discuss the problems of language testing in the multi-lingual and multicultural societies of Southeast Asia;

To stimulate interest and research in the field of language testing in the region.

Abstracts are invited on topics relevant to the theme of the seminar. Further information and invitations to participate in the seminar can be obtained from the following address: Director, (Attention: Chairman Seminar Planning Committee); SEAMEO Regional Language Centre; RELC Building; 30 Orange Grove Road; Singapore 1025; Republic of Singapore.

UNIVERSITY OF LEIPZIG

The University of Leipzig has offered the Clearinghouse their annual ESP bibliographies entitled "Kleine Bibliographie fachsprachlicher Untersuchungen" which are well documented with titles from Russian, Czech and Polish publications alongside German, English and French titles. The Russian titles are presented in Latin transcription. The objective of the bibliography is to keep pace with current research on languages for special purposes conducted in various parts of Europe (so far) from the angle of language teaching, research on terminology, technical translation, stylistics and frequency counts of vocabulary, patterns of word formation and types of sentences preferred in specific texts.

UNIVERSITY OF ESSEX

The Department of Language and Linguistics of the University of Essex offers a 10-week course in the Summer Term of each academic year, beginning in 1980, and leading to a qualification of the University: The Certificate in the Teaching of English for Specific Purposes.

The Certificate is intended for overseas or U.K. teachers of English as a Foreign Language and writers of teaching materials who have interest or experience in ESP, and who preferably have some knowledge of Applied Linguistics. The course aims to give an overview of major concerns in ESP course design, to examine critically current developments in theory and methodology, and to give participants an opportunity to design their own materials.

Tuition fees: payable to the University on registration, are currently £460. Fees are not inclusive of board and accommodation. Intending participants should contact the University Housing Office as early as possible for help in finding accomodation.

Further details and application forms are obtainable from: The Chairman; Department of Language and Linguistics; University of Essex; Wivenhoe Park; Colchester CO4 3SQ; Essex; England; Tel. Colchester (0206) 862286.

UNIVERSITY OF WISCONSIN - STOUT

A team of educators at the University of Wisconsin-Stout worked this summer on a Bilingual Vocational Education Project.

SP 015 217

This four month project had four primary goals:

1. To complete a needs assessment of the field of bilingual education in Wisconsin,
2. To publish an annotated bibliography of bilingual instructional materials, an overview of successful programs and recommendations for needed technical assistance,
3. To publish dictionaries of technical Spanish & Vietnamesees for three vocational areas, and
4. To begin publication of a newsletter of bilingual/bicultural education.

The project coordinator is Dr. Archer D. Heinzen, University of Wisconsin - Stout, Menomonie, WI. 54751.

MANUSCRIPTS WANTED

The Institute of Modern Languages, Inc. proudly announces the development of a new series of books, entitled the Language and Literacy series, dealing with such interdisciplinary content areas as adult literacy, English as a Second Language, bilingualism, urban literacy, visual literacy, public policy, social attitudes and values, bidialectalism, reading comprehension, language assessment, neurolinguistics, the sociology of language and the foundations of language education. The goal of the series is to transcend the singular interests and traditions of individual language-related disciplines to arrive at a new level of analysis and pedagogical application. As such, Language and Literacy will be of value to administrators, teachers, parents, psychometrists and students from a variety of fields.

Those publications which combine both the theoretical and pedagogical modes of presentation are of special interest. Teachers, researchers and other scholars who wish to submit a manuscript or explore the feasibility of an emerging work should submit an abstract (including description, market and objects of work) and resume or curriculum vitae to: Robert N. St. Clair, Ph.D.; Series Editor; *Language and Literacy*; College of Arts & Sciences; University of Louisville; Louisville, Kentucky, 40208. Phone: (502) 538-6801.

TESOL PREPARATIONS

The Teaching English Abroad/Special Interest Group (TEA/SIG) of TESOL, in preparing for the March, 1980 TESOL Convention in San Fransicso, seeks information from researchers and teachers outside the United States. Researchers overseas are asked to submit abstracts of their research to TEA/SIG even if they do not plan to attend the convention. Teachers overseas needing ideas to improve their teaching in difficult circumstances may submit to TEA/SIG their pedagogical problems with a description of their teaching situation (materials used; number, level and age of students, type and purpose of instruction, etc.) Correspondence should be addressed to Dr. Lin Loughead, Education Development Center, 55 Chapel Street, Newton, Massachusetts, 02160, U.S.A.

* * *

EST-ESP CHILE/SPECIAL

The first 'Special Number' of the EST-ESP Chile Newsletter has recently been published. It contains a total of 3 papers considerably larger and somewhat wider in scope than those appearing in the Newsletter's regular format. The first, by Odette Boys is a well-documented critical survey of the state of the art in Chile whose lessons are widely relevant ot other countries; the second, by Ana Maria Harvey and her colleagues is addressed to an important area of ESP, viz. evaluation, about which extremely little has yet been published; finally, Jack Ewer's is a detailed description of the methodological procedures developed for the specialised training of teachers for ESP and opens fresh ground in a difficult but crucial sector.

The publication is 90 pages long and can be obtained at cost-price (including airmail postage) (U.S $4,00) by sending cheque to the Secretary, Casilla 16095, Santiago 9, Chile.

ABOUT EST-ESP CHILE NEWSLETTER

POLICY: EST-ESP Chile Newsletter is a joint publication prepared under rotating editorship by different universities in the country interested in the development and promotion of EST-ESP. It appears twice a year; May and November. It gives information about courses, seminars, meetings, etc. which have recently taken place in the country or are planned for the near future and contains articles and news items about research, methods and materials of interest to practising teachers and programme administrators in EST-ESP. In addition, special numbers are issued from time to time; these contain articles of considerably greater length and wider scope than can be published in the regular Newsletter.

SUBSCRIPTIONS: At present the Newsletter is distributed free to institutions and persons engaged in teaching EST-ESP. Representative of such institutions wishing to receive the Newsletter should write to the Secretary giving some idea of their institution's involvement in ESP and the size of the staff employed in such activities. Unfortunately, copies of earlier issues are no long available.

CONTRIBUTIONS: Contributions on all matters connected with EST-ESP are welcome from both within & outside the country. We are particularly interested in receiving contributions from our readers in other parts of Latin America so that news from these countries can be incorporated thus bringing together the practitioners from all parts of the subcontinent. We urge our readers to send us news of all relevant research and development projects, new courses and events such as conferences, seminars and workshops. Interim reports and even news of projects just begun are as welcome as reports of completed work, as are reports of small-scale classroom research. Main articles for the normal issue of the Newsletter should preferably not exceed 2000 words in length. Longer articles up to 10000 or 12000 words can be considered for publication in special issues. All manuscripts of articles, news and reviews intended for publication should be addressed to the Secretary, Casilla 16095, Santiago 9, Chile.

SLANT

SLANT is a newsletter for researchers and teachers working in the field of second language acquisition. Its goal is to inform its readers of the most recent developments in the field of second language research around the world. To encourage researchers and teachers to share their work, SLANT publishes resumes of research in progress. All second language researchers are invited to submit resumes of the their research in progress describing their subjects, data collection procedures, analysis and language involved—200 words maximum. Please include your complete mailing address so that others interested in your work can contact you directly, Send resumes to: Research Resumes; SLANT Newsletter; English Department; San Francisco State University; San Francisco, California 94132, USA.

SLANT is published twice yearly with the administrative assistance of the English Department at San Francisco State University. Deadlines for publication are September 1 for the Fall issue and March 1 for the Spring issue. Subscriptions, based on a calendar year, are $2.00 (in N. America) and $5.00 (elsewhere) for individuals, and $5.00 (in N. America) and $8.00 (elsewhere) for institutions. Please address all correspondence regarding subscriptions and back issues to: Tom Nunnelley; English Department, San Francisco State University; San Francisco, CA. 94132, USA. Please address all other correspondence to: Judith Chun; Box 2651; Sanford, California 94305, USA.

◆

UNIVERSITY OF BIRMINGHAM

M.A. in Applied English Linguistics
(with particular reference to English for Specific Purposes)

Applications are invited from experienced teachers of EFL for admission to a new two-year sandwich course, combining work in post with one term's intensive study on the Birmingham campus each year.

Application forms and details from the Registry, Faculty of Arts, University of Birmingham, PO Box 363, Edgbaston, Birmingham B15 2TT, England. Further details from Chris Kennedy (ext. 2033) or Richard Mead (ext. 3646), English Language Research University of Birmingham 021-472-1301.

◆

V INSTITUTO

O V INATITUTO INTERAMERICANO DE LINGÜÍSTICA será realizado, de 2 de janeiro a 12 fevereiro de 1980 na UNICAMP, Universidade Estadual de Campinas, sob os auspícios do PILEI, UNICAMP e ABRALIN com a colaboração de várias instituicões do Brasil e do Exterior. El plano de cursos incluido a ESP.

ENDEREÇO PARA INFORMAÇÕES

Comissão Excutiva do V I.I. L. - Presidente:
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Membros: Francisco Gomes de Matos (Presidente do PILEL) e Carolos A. Vogt (IEL/UNICAMP)

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Linguística Y Enseñanza de Idiomas

Prof. Dr. Francisco Gomes de Matos
Instituto de Idiomas Yázigi
Avenida 9 de Julho 3166, 01406 - São Paulo-SP
Fone (011) 287-4611.

◆

NEW NEWSLETTER

Is the organisation of language training one of your responsibilities? Would you like to be better informed on the subject? Would it be helpful for you to compare and exchange experiences on an international basis?

The need for well designed language training programmes for adults has never been more urgent. In the UK, the British Overseas Trade Board recently published a report stressing the need for British companies to improve their knowledge of foreign languages for the purposes of overseas trade. In Europe the Council of Europe has been working for some years on the development of a European unit-credit scheme for language learning by adults, with the guiding principle that language courses should be closely geared to the needs, motivations and characteristics of the learner.

The need now is for training managers, industrial training boards and adult education organisations to inform themselves about developments in this field. As a stimulus to a freer flow of information, LTC Professional Language Services in London have decided to publish a quarterly Newsletter, entitled 'Language Training'.

'Language Training' is aimed primarily at the training manager rather than the language teacher. The objective is to present ideas and information on the subject of vocational language training, and to provide a forum for discussion and the exchange of ideas, which we hope will extend to regular seminars. Part of it will consist of contributions from people in the field, and a great effort will be made to avoid the jargon of language teaching and linguistics.

The Newsletter is available on subscription from LTC Professional Language Services, Contact: Adrian Pilbeam, Editor; LTC Professional Language Services; 26-32 Oxford Street, London W1A 4 DY, England.

·(COURSE ANNOUNCED)·

Language Development Services announces "Professional Communications for Foreign Engineers".
For more information contact: Language Development Services; Suite 501/739 Boylston Street; Boston, Massachusetts 02116. Telephone: (617) 267-6439

◆

ENERGY AND MAN

Ali H.S. Hajjaj,
Ministry of Education
Kuwait

Since the theme of the conference is "Environmental Education and its Integration with School Subjects", and since the concept suggested (by the subcommittee for Secondary Education) is "Energy and Man", the following module aims at increasing the learners awareness of and interest in the role played by the "Environment" in general and "Energy and Man" in particular, in daily life, without loosing sight of the underlying aim of improving upon the learner's ability to use English. More specifically, the module aims to:

(1) Increase the learners' knowledge of 'Energy and Man through English.

(2) Create and maintain their interest in 'Energy and Man'.

(3) Motivate them to participate in seeking further information on 'Energy and Man' from various sources, in particular other school subjects, e.g. science and social studies.

(4) Motivate them to participate in activities, projects and investigations leading to an increased sensitivity to the role played by energy in our life, in particular,

  (a) better use of available resources of energy
  (b) avoidance of dangers resulting from energy consumption
  (c) educating self and others in (a) and (b)

(5) Sensitize learners' attitudes and inclinations towards specialization in Environmental studies in tertiary education.

(6) Establish a closer link between learning English and learning other "subjects".

PROCEDURES

In order to achieve the aims mentioned above, the following steps are suggested for a projected 'teaching unit"

  (1) Choice of level
  (2) Choice of text/aids
  (3) Choice of classroom activities/individual and group work.
  (4) Transfer to outside activities/individual and group work.
  (5) Extension: individual/joint projects
  (6) Integration with other school subjects
  (7) Evaluation

CHOICE OF LEVEL

The Secondary Education Sub-Committee has chosen the pupils of the 10th grade as 'Population' for the module. Those students are assumed to have acquired on entry:

  (1) A common core of linguistic structures and lexical items.
  (2) Some sensitivity to the functions of the English language e.g. they can report past events, describe things, ask and answer questions, suggest, agree, disagree, give and receive instructions, and the like, in fairly acceptable English
  (3) Ability to understand, read and write fairly acceptable English.

CHOICE OF TEXT

(1) Scientific Context: The text/texts may include the following components in the order given:

  (a) Definition of energy
  (b) Historical perspective of man's use of energy with an increasing focus on types of energy close to the learners' daily life. (e.g. Chemical, Electrical, Solar and Nuclear energy).
  (c) Exemplifications of general relations between various types of energy and man's use and abuse of them.
  (d) Exemplifications of immediate relations between energy and man's use/abuse of it.
  (e) Projections: diminishing energy resources or new ways of manipulation or new types of energy?

(2) Language Context: While taking the learners' English entry level in view, the text/texts should also aim at improving the learners competence. Accordingly, a degree of language difficulty is to be expected.

CHOICE OF AIDS

(1) Blackboard: for listing types of energy, various uses for each, comparisons, etc.

(2) Photographs of (e.g.) Disalination Plant, Oil rig, etc. for discussion.

(3) Overhead Projector (if available)

(4) Slides/Film strips/Films, etc.....

CLASSROOM ACTIVITIES

(1) Understanding text/texts: silent reading, explanation of key words, etc.

(2) Manipulating text/texts: listing types of energy, uses, abuses, summarizing.

(3) Exemplifying.

(4) Arguing: e.g. X is more/less useful than Y.

(5) Differentiating e.g. between use and abuse.

(6) Expanding e.g. listing uses/abuses other than those mentioned in the passage.

(7) Let's pretend to be:

  (a) Water Supply Expert
  (b) Electricity Consumption Planner
  (c) Oil Production Secretary

(8) Let's think ahead:

  (a) types of energy used in the year 2000
  (b) Air-conditioning by Solar energy.
  (c) Non-oil-consuming cars, etc.

(9) Let's compete in:

  (a) Preventing wasting school water supplies
  (b) Avoiding excessive use of electricity.
  (c) Planning for a city with a minimal degree of pollution, etc.

TRANSFER

(1) Selecting other texts on energy (in Arabic or English) from school library or elsewhere.

(2) Selecting texts on other environmental topics (in Arabic or English) e.g. Pollution, population (problems), Industries, etc.

(3) Selecting literary/journalistic/etc. writings dealing directly/indirectly with energy, etc.

EXTENSION

(1) Individual Projects: Lists of types of energy used in the home/offices/school and ways of using/abusing them.

(2) Joint Projects: Arrange visits to places/industries/oil terminals/etc. and ask each group to prepare a report/study/investigation/etc. of the situation.

INTEGRATION WITH OTHER SUBJECTS

(1) CONSULT the science teacher on ways of energy conversion and report back to the class.

(2) Request the social studies teacher to provide you with maps/statistics/etc. on world distribution of (types of) energy and report back.

(3) Take science/math text/texts and prepare a list of words on energy and their Arabic/English equivalents.

Etc.

EVALUATION

(1) Of the Module
- (a) teacher's own impression on the learners' progress in English and increased sensitivity to/awarenessof/positive behaviour towards/interest in energy
- (b) Check with colleagues to confirm/refute the above.
- (c) Conducting a questionnaire on learners to get positive/negative feedback.

ETC.

(2) Of the learners' improved English standard:
- (a) through on-going assessment
- (b) through written examinations

(3) Of the learner's behaviour towards energy and the environment generally:
- (a) Change of behaviour (which necessitates monitoring pre-module behaviour).
- (b) Check with colleagues/other learners/parents, etc.

* * *

ESP - MEDICINE:
MAKING A STRONGER IMPACT ON THE MEDICAL FIELD

Margaret M. van Naerssen,
University of Southern California

Much work is being done in the field of ESP/EST relevant to the medical field and the value of professional efforts by the EST Clearinghouse, Teachers of English to Speakers of Other Languages, the Association International de Linguistique Appliquée as means of sharing our efforts in this field is recognized. However, as in any profession, it is very easy to end up taking primarily to one's colleagues due to the sheer lack of time for keeping up in other relevant disciplines; due to a failure to recognize the potential application of what one is working on for other disciplines; or due to an awareness of how to make a greater impact. This brief article addresses itself to this third point: how ESP-Medicine can have a greater impact on the medical field. This is not intended to ignore the excellent efforts that many are making in individual materials development and in training programs as that is where all the research going on in our various fields is ultimately the most relevant. This is, rather, intended to simply suggest that these efforts can be expanded more rapidly with increased communication across disciplines.

The medical profession has already provided us with recommendations concerning needs of foreign medical personnel in the USA through the efforts of the Educational Commission for Foreign Medical Graduates in the form of a guide: Introducing the U.S.A. to Foreign Medical Graduates: Guidelines and Resources. In medical journals there are periodically reports of statistics on, problems of, and programs for foreign medical personnel, but in many instances these are not seen by those of us in the ESL and linguistics fields, nor are ESL specialists always involved in the efforts reported on. The American Medical Association held a one-day workshop on improving English pronunciation for FMGs on June 30, 1979, but how many of us were aware of this?

What does the medical profession, in general, and medical educators and administrators, specifically, know about our efforts in linguistic research and in developing ESL and cultural orientation materials relevant to foreign medical personnel beyond the medical personnel with whom we work in our individual programs? (I have been no better myself in communicating with the medical profession: like many of you I have several articles that I've never bothered to just rewrite slightly and submit to relevant medical journals.)

The following suggestions are being made to indicate some ways in which we can overcome this relative lack of communication.

Building on the Medical Literature

Find out (and recognize in your articles) what is already happening in the medical field regarding identifying the needs of and training foreign medical personnel. Build on such efforts in your materials development. (This will also add credibility to your efforts when you share them with those in the medical profession.)

Sharing Your Efforts with the Medical Profession

Submit manuscripts to medical journals. Find out which medical journals are most commonly read by those you wish to reach, including any relevant medical specialties and hospital administration and support staff. Overcome any reservations you may have about submitting an article to a professional journal outside of your profession. If your research or program reports and articles are very technical, determine what is applicable to a training program and rewrite the report in terms that are intelligible to laymen. If your article or report is strongly critical of the medical profession, reword it so that any critical observations are followed up by constructive suggestions to avoid alienating readers. Avoid making observations about the medical competence of foreign medical personnel; focus on those problems with which you are trained to deal. You may also wish to consider submitting your report (in case it is not accepted by a journal or while you are waiting for a response) to the National Library of Medicine (USA) as documents are catalogued there from a wide variety of sources.

Find out when the various medical organizations are planning their county/state/provincial/national conferences and determine how one submits papers for presentation at such conferences. Frequently these are listed in medical journals.

Medical References

The list below does not, by any means, include all medical journals, but it does include the names and addresses of the more commonly read medical journals from Canada, Great Britain, and the USA which are generally available in most medical libraries (except possibly in smaller hospitals) and in many public libraries. (One specialty journal, in psychiatry, is also included as there is a particularly high percentage of foreign psychiatrists in state hospitals in the USA).

American Journal of Psychiatry
1700 Eighteenth Street, N.W.
Washington, D.C. 20009 USA

British Medical Journal
Tavistock Square
London, WC1H 9JR
England

Canadian Medical Association Journal
CMA House, 1867 Alta Vista Drive
P.O. Box 8650
Ottawa, Ontario K1G 0 G8
Canada

Journal of the American Medical Association
American Medical Association
535 N. Dearborn Street
Chicago, Illinois 60610 USA

Lancet
7 Adam Street
London WC2N 6AD
England

New England Journal of Medicine
10 Shattuck Street
Boston, Massachusetts 02115 USA

Hospitals: Journal of the American Hospital Association
840 W. Lake Shore Drive
Chicago, Illinois 60611 USA

In order to speed up your research on what is already being reported on in medical journals below are several medical indices which reference articles in the numerous medical journals and other related sources.

Cumulative Index to Nursing & Allied Health Literature

Hospital Literature Index

Index Medicus (the broadest, over 5,000 journals/monographs, over 40 languages)

Cumulated Abridged Index Medicus

National Libarary of Medicine Current Catalog

The above suggestions are not intended to be very original as most of them would occur to anyone who has thought through a plan of cross-disciplinary communication. These are simply provided as reminders and/or suggestions, to encourage you to think in cross-disciplinary terms, to help those in ESP-Medicine have a greater impact on what is happening in the medical profession.

* * *

USSR TEXTBOOK

"Essential English for Medical Students", a textbook written and published in the USSR, is available in the USA from: Four Continent Book Corporation, 149 Fifth Avenue, New York, NY. 10010.

CURRICULUM DEVELOPMENT RESOURCE MATERIAL

Those of you who are attempting to write occupational specific VESL materials may find the ACE Project Materials of help. The Adult Competency Education (ACE) Project was a detailed study of the reading, writing and math skills necessary for 70 entry level jobs in San Mateo County, California. Each job profile gives a general description of the academic requirements for that job, specifies precisely what a person entering that job needs to know and lists related instructional objectives. Prepared with Basic Education rather than ESL needs in mind, the job descriptions do not adequately take into account listening and speaking needs. However, they help provide the outsider with a good understanding of what it is necessary to learn to enter that field. Contact: ACE Project; 609 Price Avenue, Suite 101; Redwood City, Ca. 94063 USA.

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By David Blackie

A new Course for ESP students at lower intermediate level upwards.

The Students' Book has 14 teaching units covering simple arithmetic, fractions, ratio and proportion, elementary algebra and geometry, as well as graphs, logarithms and trigonometry. Each unit contains oral and written practice, with 7 revision test units.

Common abbreviations, the Greek alphabet and verbal equivalents of mathematical symbols are explained in appendices at the back of the book.

The Teachers' Book contains notes and a key.

☐ SAY WHAT YOU MEAN IN ENGLISH

By John Andrews

A two-part supplementary course in spoken English, with the emphasis on teaching communicative skills from an elementary to an intermediate level. Embodying the notional/functional approach to language learning, it gives meaning the highest priority and comprises 50 units in 2 volumes, dealing with such language acts as apologizing, making suggestions, giving and accepting invitations, and expressing annoyance and enthusiasm. The complete package consists of 2 pupils' Books (illustrated with simple but lively line-drawings, with the language function determining the grammatical structures presented). teacher's notes, accompanying cassettes and workbooks to provide written reinforcement.

☐ BEGINNING SCIENTIFIC ENGLISH

By D.E. Royds-Irmak

This course consists of two books aimed at those students preparing to study scientific subjects in English. Elementary science material is presented in 40 graded units, each dealing with a different topic. In every unit, short texts, A and B, are followed by exercises on these vocabulary and language items which take a prominent place in technical writing. Text A presents the subject matter in everyday language; Text B is the same text re-worded in scientific terms. Special emphasis is given to passive structures and comprehension questions and points for discussion are included. Illustrated with diagrams and photographs.

☐ WRITING SCIENTIFIC ENGLISH

By John Swales

A course specially designed to improve the writing of scientific English of EFL students taking physics, chemistry, engineering or technical subjects.

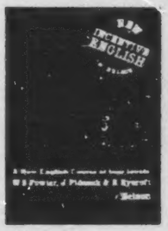
A comprehensive coverage of the structure of scientific English at textbook level and a wide variety of exercises are offered. The approach adopted is flexible; certain units, such as those dealing with dimensions and properties, definitions, descriptions and tables and graphs, develop along functional lines, but in areas where a functional design is less appropriate as in relative clauses and compound nominals, the approach is more grammatical.

☐ FUNCTIONAL ENGLISH

By Ronald V. White

A functional course for intermediate and advanced students of English.

Functional English is a two-book course which teaches students to communicate effectively by understanding and controlling the relationship between language forms and functions. A wide range of textual material and exercises from a variety of sources is featured, showing how both spoken and written English are used to serve the various purposes on communication. The aim of the course is to build upon teachers' and students' existing knowledge of and experience in the language.



☐ INCENTIVE ENGLISH

By Fowler, Pidcock & Rycroft

INCENTIVE ENGLISH is a four book course designed to teach students, from beginners upwards, to communicate effectively and accurately in English, both in speech and writing. The books are structurally based, but the order of presenting structures is determined to a large extent by the student's communicative needs. The language used is always presented in real-life contexts, and role playing and group work form an integral part of the course. Pronunciation problems are given a great deal of attention and intonation is treated with progressive importance.

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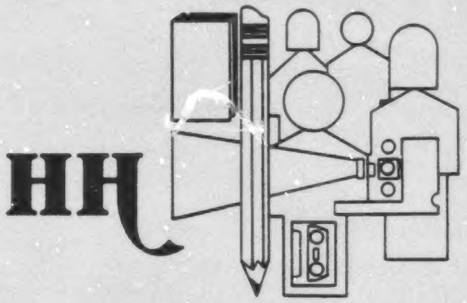

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~ special issue ~

English for Specific Purposes

- GUEST EDITOR -

Steve Hanchey
1979 EST Summer Institute

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ESP.EST SUMMER INSTITUTE—THE FIRST TWO YEARS...

With the completion of the 1979 EST Summer Institute, more than forty professional teachers, curriculum developers, materials developers, and administrators have taken part in the first two activities on the Oregon State University campus. The Institute grew out of a demand on the part of the readership of the EST Newsletter for advanced teacher training in this field, a demand which became particularly apparent during the 1977-78 academic year. It was decided to ask John Lackstrom of Utah State University to come to Corvallis to organize a teacher training institute for 12 ESP program specialists from both the U.S. and abroad. The small size of the 1978 undertaking allowed participants opportunities to develop their individual research interests, which resulted in professional papers and/or presentations by 9 out of 12 during the 1978-79 academic year at local, national, and international conferences.

Expansion of the Institute in 1979 to 32 participants brought to Corvallis a larger teaching staff of specialists in the ESP field. In addition to John Lackstrom, who returned to coordinate the academic curriculum, and Karl Drobnic, Director of the EST Clearinghouse, the 1979 Institute featured Prof. Louis Trimble and Mary Todd Trimble of the University of Washington, and John Swales, of the University of Aston in Birmingham, U.K.

Participants and staff spent four weeks working in the areas of ESP curriculum and course design, materials preparation, textbook review and analysis, and rhetorical and discourse analysis. Coming as they did from over twenty different states and countries, participants found the gathering of interested ESP specialists an invaluable occasion for the exchange of ideas and approaches, and ample use was made of the resources available in the Clearinghouse.

This special issue of the Newsletter has been written by participants at the 1979 EST/ESP Summer Institute, and reflects a small sample of the varied work the four weeks encompassed.

BACKGROUND OF THE 1979 EST SUMMER INSTITUTE STAFF

by Tahar Fradi, Tunis Air

The 1979 EST Summer Institute faculty represented a unique blend of American and British thought and experience. John Lackstrom, Curriculum Coordinator, is currently Assoc. Professor of Linguistics and English as a Second Language at Utah State University, Logan, Utah. He has been involved in English for Science and Technology since the late 1960's when he worked with Louis Trimble and Larry Selinker at the University of Washington, where he received his Ph.D. in 1970. His interest in the area has continued with publications in the area of English for Academic Purposes in Science and Technology. Recently, he has become interested in learner-centered methodologies and their use and adaptation for the specialized requirements of English for Specific Purposes classes.

John Swales, Senior Lecturer in the Language Studies Unit of the University of Aston in Birmingham, U.K., is also engaged in many ESP activities. His course in the Summer Institute covered the writing of ESP materials and textbook preparation. He has taught EFL in Italy, Sweden, Libya and the Sudan. He helped found the ESPMENA Bulletin while serving as Director of the English Language Servicing Unit, University of Khartoum, Sudan. His publications include Writing Scientific English (1971) a work well-known to many teachers in ESP. Recently he co-authored English in the Medical Laboratory (1979) and his current interests include study methods in the Middle East. He will be involved in a forthcoming University of Aston summer school in ESP for overseas teachers to be sponsored by the British Council.

Prof. Louis Trimble's course during the 1979 EST Summer Institute dealt with Rhetorical, Grammatical, and Lexical Analysis. As a faculty member at the University of Washington, Prof. Trimble has been engaged in research and teaching of English for Science and Technology since 1967. He currently teaches scientific and technical communication in the College of Engineering. His publications include a number of articles on EST and English for Multinational Business (1978). He has lectured on ESP in Poland, Yugoslavia, and Mexico.

Mary Todd Trimble, an active researcher in EST, coordinated the textbook review and analysis portion of the Summer Institute. Her background includes graduate work at the University of Leeds, teaching in Yugoslavia, and a variety of EST research since 1974. She has done consulting work in EST curriculum design and helped organize two summer institutes in EST for foreign teachers at the University of Washington.

Administrative support and coordination were provided by Karl Drobnic, Editor fo the ESP Newsletter and Clearinghouse; and by Stephen Hanchey, representing the School for International Training and the Experiment of International Living. Karl Drobnic's overseas teaching includes Peace Corps service in Ethiopia as well as a Fulbright lectureship in Idonesia. At Oregon State University since 1974, he founded the EST Newsletter in 1977, a service which now extends to more than 40 countries. Stephen Hanchey is involved in intensive language training for international business and recently completed a program for an Italian bank group. His previous experience includes Peace Corps staff work in Tunisia and Morocco and with the Ford Foundation in Saudi Arabia.

* * *

STUDYING DISCOURSE ANALYSIS WITH LOUIS TRIMBLE

by Donna Rice, SUNY-Buffalo

Participants in the Discourse Analysis module of the 1979 Summer Institute enjoyed a rare academic treat in the course taught by Prof. Louis Trimble, well-known EST specialist, author, scholar and entertaining lecturer.

The scope of the course was broad, and touched upon every aspect of written discourse analysis pertinent to ESP. The introduction consisted of an overview of the basic concepts of ESP, and dealt with such topics as the rhetoric of ESP, rhetorical-grammatical relationships, ESP lexis and the difference between ESP and GELP (General English Language Programs). Trimble postulates that any truly observable difference between ESP and GELP is one of degree, rather than kind.

During successive sessions, Prof. Trimble led participants through a stimulating "hands on" analysis of various samples of academic texts in which we looked more closely at the general rhetorical functions of scientific language, such as stating a purpose of discussing a theory. Participants then analyzed the specific rhetorical functions that are employed to develop those general functions. Finally, rhetorical techniques (e.g. time/space order) that are used to provide relationships within and between the units of discourse were examined.

One of the major points made by Prof. Trimble was that ESP teachers should not be trying to teach the specialized subject matter in ESP courses. They should be teaching the English of these specialized areas. He says furthermore that the effective ESP teacher cannot assume that the students recognize such features as time vs. space order, or the difference between such contrast phrases as "in contrast" and "however". He stresses the importance of teaching and analyzing such rhetorical features as they appear in the discourse. For Trimble, the value of such analysis is that the student can then begin to see how the language works in scientific writing, and therefore be more capable of mastery.

Work in the Trimble module proceeded to sessions on materials preparation and discussions of types of ESP classes and which types of materials are most appropriate for each. Participants were given opportunities to prepare and present a lesson plan to the group as a whole.

* * *

RESULTS OF SURVEY ON CURRICULAR NEEDS IN EST/ESP

by Jay Nunley, Delphian Foundation

At the Institute 30 participants were interviewed and asked these three questions:

1. What kinds of ESP/EST materials do you feel that you need most?
2. Who should the publishers consult before publishing the materials you mentioned?
3. What would the ESP/EST scene be like if these materials were readily available?

The responses were noted and grouped into similar categories as much as possible. Because multiple answers were allowed, the total number of responses to each question totalled more than 30.

1. Post-secondary/pre-university basic English: 10
   Reading: 6
   Physical sciences & engineering subjects: 4
   Don't know/can't tell: 3
   Testing and evaluation: 3
   Business: 2
   Other: 4

These results pointed to a lack of a clear-cut consensus among the participants of the Institute concerning their specific needs. Interestingly, the Institute centered on specialized needs for English, but the largest sub-groups (the first two categories) mentioned basic skills first.

2. Teachers (in the field): 15
   Don't know/not sure: 5
   Administrators/program coordinators: 5
   Institutions: 4
   Specialists (named): 3
   Industries/employers: 2
   Others: 3

The majority of respondents to this question felt that publishers should consult with those who would be using the materials before attempting to bring out new materials. Although a needs assessment was not specifically requested by anyone, such an activity would serve the publisher well in determining what the ESP/EST public wanted.

3. (In some way) easier to teach: 7

    Would encourage people with less specialized experience to become more involved in EST/EST: 4

    Student satisfied and happier: 2

    Other: 6

The majority spoke of an improved situation of ESP/EST, but it was interesting to note that a third of the pariticpants (answers 2 and 4) mentioned improvement of the academic standing of ESP/EST, an issue not infrequently mentioned during the Institute.

It is hoped that the results of this modest survey will be useful to both practitioners and publishers in the ESP/EST field, and will help in formulating the international ESP/EST survey currently being prepared by John Dermody and the EST Clearinghouse.

* * *

A REVIEW OF DISCOVERING DISCOURSE, IN THE SERIES READING & THINKING IN ENGLISH, H.G. WIDDOWSON (ED), OXFORD UNIVERSITY PRESS, 1979

by Linda Lonon Blanton,
Central YMCA Community
College, Chicago

BACKGROUND

Discovering Discourse is third in a four-part series entitled Reading and Thinking in English, the other three being Concepts in Use, Exploring Functions, and Discourse in Action. All the materials were developed and used in Universidad de los Andes, Bogota, Colombia, under the co-sponsorship of the British Council. The entire course, starting at near-beginner level of English language proficiency and moving through advanced, was designed to take two years, each book containing material for one semester. Being the third in the series, Discovering Discourse should then be used in teaching reading to a mid- to high-intermediate level class

TARGET STUDENT GROUP

The entire series is aimed at students preparing for university level work, students whose eventual professions will require them to read material in English. The students who are to use the series will be required in the future to read textbooks, reference books, etc., within a wide range of subjects. All of their reading will be for the purpose of gaining access to information. Given the target group, their needs can then be specified as English for Academic Purposes, which the series claims to teach.

LINGUISTIC AIMS

The series is based on a communicative approach to reading, assuming that efficient reading requires knowledge of how writers structure passages to communicate. The series aims at teaching readers to think about how the resources of the language are put to communicative use. In particular, Concepts in Use aims to teach how language expresses fundamental concepts, Exploring Functions aims to make the reader aware of the rhetorical devices provided by the language, and Discovering Discourse aims to show the reader how these devices are used in academic communication and how these devices can be combined. By the time the reader is through with Discourse in Action, she/he is expected to be aware of all the written communicative resources of the language.

COURSE STRUCTURE AND METHOD OF PRESENTATION

Discovering Discourse concentrates on language used to organize information in written passages. It consists of six units, as follows:

Unit 1 - a general beginning unit on reading strategies, e.g. understanding vocabulary in context

Unit 2 - generalizations

Unit 3 - descriptions

Unit 4 - definitions

Unit 5 - classifications

Unit 6 - hypotheses

Each unit is, in turn, divided into five parts, with the first part introducing the rhetorical framework, the third and fourth parts usually concentrating on variations on the types and expansions of these, and the last part always applying what the student has learned to new pieces of writing. Unit 5: Classification could be taken as a sample:

Part 1 - purpose of classification

Part 2 - types of classification

Part 3 - ways of expressing classification

Part 4 - expanded classification

Part 5 - application of reading strategies to a passage concerned with classifications

Each unit is approximately fifteen pages long, the entire book containing 108 pages. Throughout each unit, the students read, analyze, receive examples, answer questions on content and organization, and do exercises, which often require them to fill in tables with information from various passages. At the end of the fifth part of each unit, there are directions on writing a summary of a passage in the unit.

UNDERLYING METHODOLOGICAL PRINCIPLES

The methodology of Discovering Discourse centers on discourse analysis, as the title suggests. Each lesson focuses on a particular method of organizing and presenting information and through a systematic explication-de-texte type progression, the learner reads a sample, is given some explanation, is asked questions to lead him through the text, works with the text by doing certain kinds of exercises, and then sees/reads more sample texts of the same type. All behavior required of the learner is cognitive; no responses seem rote.

SELECTION & GRADING OF LINGUISTIC STRUCTURE AND VOCABULARY

Although the series aims at a progression in English language proficiency from near-beginning through advanced, there is no evidence of grading of either vocabulary of grammatical structures in Discovering Discourse. Long complex sentences, sometimes with three or four clauses are to be found throughout, as are sentences in the passive voice. Academically sophisticated words, such as "component", "requirement", "productivity", "observations", etc. abound in the first two units, as well as in later sections of the book. While the linguistic structures and vocabulary seem carefully selected for their appropriateness and usefulness in English for Academic Purposes, they seem far too difficult for students of an intermediate level of English language proficiency. They seem more appropriate for very advanced students.

VISUAL ASPECTS OF THE TEXT

Discovering Discourse is extremely attractive visually, with clear and relevant graphics, wide margins, and easily discernible divisions between instructions/exercises and text and between unit/section headings and content. All passages to be read are printed in red type and all else on the pages is in black. There are ample tables, diagrams, and charts to help clarify points and wherever students are expected to do completion work, boxes are shaded red. The only problem might be lack of space to fill in the required information.

TEACHER AIDS

There is a companion teacher's edition to Discovering Discourse containing a guide to the presentation of the lessons, suggested background reading for the teacher, and, most importantly, answers to all the exercise questions!

SUMMARY POINTS

The book looks excellent for an advanced group of students, but extremely difficult, if not impossible, for an intermediate group. Used with the right group, it should be a good teaching tool. The discourse approach is, I am convinced, sound, and the methodology, that of teaching rhetorical frames, is proven. It is one of the few textbooks available that attempts to teach students how to read, as opposed to having them read, and the reading strategies learned by the students should be easily transferable to course-specific materials. Finally, Discovering Discourse can be used as is, and would probably require no supplementation; given the teacher's edition, neither would it require an unreasonable amount of preparation time on the teacher's part.

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A SHORT LIST OF SCIENTIFIC DICTIONARIES

by Mary Todd Trimble, University of Washington

Chambers Dictionary of Science and Technology, 2-volume paperback. (For teachers and advanced students. Up-to-date. Larger than the other dictionaries listed here except the McGraw Hill. Rather difficult.)

Evans Dictionary of Science and Technology (Aimed at foreign students—the only dictionary here meant specifically for them. Covers a first-year university of technical course vocabulary in mathematics, physics, science and engineering. Likely to be very useful. Published in late 1978.)

Flood, W.E. and M. West, An Elementary Scientific and Technical Dictionary, Longman. Meant for the general, non-scientific reader. Listed only in the British-Longman catalogue at present.)

Godman, A. and E.M.F. Payne, Longman Dictionary of Scientific Usage. (Publication forthcoming.) Arranged as a thesaurus, and deals with collocation: should be especially useful to materials writers.)

Lucas, David J. and J.I. James and O.J. Simpson, A First Science Dictionary, Edward Arnold, 1976. (Covers biology, chemistry and physics up to the British O-level. Meant for British school students)

McGraw Hill Dictionary of Scientific and Technical Terms, ed. Daniel N. Lapedes, 1974 on. (The largest dictionary here; best to persuade your library to buy it.)

Mandel, Siegfried, Dictionary of Science, Dell Paperback.

A Dictionary of Science, Penguin. (All Penguin dictionaries are useful, and reasonably priced. There are a number of specialist dictionaries, too, such as a dictionary of electronics and one of plastics.)

For specialist dictionaries, see the catalogues of Penguin, Littlefield and Adams, John Wiley, Duden, Elsevier (often multilingual, very specialist and expensive), McGraw Hill and Webster. Look also in Books in Print under "Dictionary of...", the subject name and the names of the subjects involved.

Publisher's Addresses

Chambers, W. and R. Ltd.
11 Thistle Street
EDINBURGH EH2 1DG
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Edward Arnold (Publishers) Ltd.
41/42 Bedford Square
LONDON WC1
The Macmillan Company of Canada, Ltd.
70 Bond Street
TORONTO 2

Dell Publishing Co. Inc.
1 Dag Hammarskjold Plaza
245 E. 47th Street
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THE PARTICIPANTS OF THE 1979 EST TEACHER TRAINING INSTITUTE

by Jonathan Elliman, Kuwait Univeristy

The 1979 Institute was attended by 32 people, mainly practising EST teachers, but including materials writers, a teacher trainer and an academic linguist. One of the salient features of the Institute was the contribution of the participants, which provided the invaluable opportunity for discussion between experts working in the same field. In fact, dialogue, starting as isolated checking of shared interest, often rapidly spread to a wider field, as corridor dialogue became common-room symposium.

The varied experience and the potential for contribution of the participants can be judged from the following record. In this table, an attempt has been made to group people by the type of EST they deal with. Where there are significant differences within a group, a further separation has been made. The first group comprises those who teach English for the academic study of Science and Technology (ESP-ST). These practitioners are here divided into two subgroups: the first concerning the preparation of overseas students in North America for eventual study in an all-English medium; the second comprising teachers working in universities in non-English speaking countries where the main objective is usually to teach reading and writing skills. This area leads into EST teacher training. Two other distinct areas of ESP may be described as English for Business and Economics (EBE), and English for Vocational Training (EVT).

BEV DURHAM, ELI, Oregon State University: EAP.

HELEN POLENSEK, ELI, Oregon State Univeristy: EAP-ST

KATHRYN MICHAELS, ELI, Oregon State University: EAP-ST

MACKIE BLANTON, Illinois Institute of Technology, Chicago: EAP-ST

LINDA BLANTON, ELI, Central YMCA College, Chicago: EAP-ST; materials writing.

PEGGY DAME, American English Institute, University of Oregon, Eugene, Oregon: EAP-ST (forthcoming)

LYN HOWES, Language Institute, Centre for Continuing Education, University of British Columbia Vancouver, B.C. Canada: EAP

GRACE MANCILL, ELI American University, Washington, D.C.: EAP

CAROL ROMETT, ELI American University, Washington, D.C.: EAP

JAY NUNLEY, Delphian Foundation, Sheridan, OR: EAP-ST

DONNA RICE, Intensive English Language Institute, State University of New York, Buffalo, New York: EAP-ST

VINCENT ANTONELLI, Vancouver Community College, Vancouver, B.C. Canada: EST

TERESA AUSTRIA, Universidad de las Americas, Santa Caterine Martir, Puebla, Mexico: EAP-ST

HEDI BANNOUR, Faculty of Science and Technology, University of Tunisia, Monastir: EAP-ST

DIANA BAHR, Northrup University, Los Angeles: EST-Aviation; materials writing.

ANA CASTRO, English Department, Instituto Tecnologico de Costa Rica: EAP-ST

MORELIA RODRIGUEZ CRESPO, Instituto Universitario Pedagogico de Caracas, Venezuela: Ph.D. research, University of Surrey England. Conversion of curriculum from ESL to EST.

JONATHAN ELLIMAN, College of Engineering, University of Kuwait: EAP-ST

FAWZIAH GHANI, School of Applied Science, Mara Institute of Technology, Shah Alam, Malaysia: EAP-ST

OMAR IRATNI, National Institute for Electronics & Electricity, Boumerdes, Algiers, Algeria: MA research, Columbia Univ.

HELEN YOUNG, Beijing, People's Republic of China, EAP-ST: Teacher Training (forthcoming)

SUSAN ZELIKOVITZ, Sacred Heart Convent, Bangkok, Thailand: ESP-ST

JENNIFER JARVIS, Overseas Education Unit, School of Education, University of Leeds, England: Est Teacher Training

BARBARA DOWLING, ELI, Oregon State University: EBE

PATRICK CARMICHAEL, American Language Institute, College of Extended Studies, San Diego State University, San Diego, California: EBE

STEVE HANCHEY, Experiment in International Living, San Francisco, CA.: EBE

CATHE TANSEY, American Language Academy, Babson College, Babson Park, Mass: EAP,EBE

MARK SEDGWICK, Concordia University, Montreal, Quebec: EAP-ST

JAN CLYMER, USICA, Bangkok, Thailand: EVT-Aviation

TAHAR FRADI, TUNISAIR, Tunis, Tunisia: EVT for French speaking, trained personnel

PHYLLIS CROWELL, ENTEL, Libyan Air Defense School, Tripoli, Libya: EVT-Electronics

BARBARA GILLETTE, ENTEL, Libyan Air Defense School, Tripoli, Libya: EVT-Electronics

TERRY SCHULTZ, ENTEL, Libyan Air Defense Schook, Tripoli, Libya: EVT-Electronics

◆

AN OVERVIEW OF JOHN SWALE'S MATERIALS PREPARATION MODULE

by Carol Romett,
The American University

The materials preparation module, directed by John Swales, took the form of a workshop providing the participants opportunities to develop materials through group projects and to share perspectives on the processes and strategies involved in preparing learning materials that effectively accomplish the purposes of the learners while maintaining linguistic adequacy and pedagogical integrity.

Among the topics emphasized were the relative merits of basing materials on contrived rather than authentic texts, the alternative procedures for adapting genuine texts, and most importantly, the ways in which the effectivity of materials can be compromised by both the external realities confronted while developing materials and the presuppositions to which preparers of materials subscribe.

Swales purposefully avoided setting up overall guidelines or criteria for materials developers, recognizing that, in spite of common objectives, individual styles of preparing successful materials vary considerably, and that no global strategies exist to cope with the diversity of learning situations encountered. Instead, the modules explored a variety of considerations inherent in the processes of learning vocabulary, reading, listening and writing skills. Assumptions about the learning process necessarily influenced the participants attempts to adapt suitable texts corresponding to the needs of learners, and to design and sequence exercises along with class activities that would effectively meet those needs.

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NEW TITLES IN EFP ("ENGLISH FOR PROFESSIONALS") SERIES

Five new intermediate-level ESP textbooks in the "English for Professionals" series published by the United States International Communication Agency (USICA) are now available to English teaching professionals working outside the United States. Interested persons should direct their inquiries to the USICA Officer at the American Embassy or consulate in their country. The Agency sometimes entertains requests from foreign professionals and their institutions for teacher training consultants in the use of these or other ESP materials.

New EFP titles include:

English for Multinational Business, Louis Trimble and Mary Todd Trimble.

Marketing, DAvid P. Rein.

International Economics and Development, David H. Wyatt.

Readings in Management, Sandra Costinett.

Management and Managers, Eleanor Lander.

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E.B.E.

- SPECIAL ISSUE -

English for Specific Purposes

Guest Editors:
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FROM THE EDITORS:

This month's issue focuses upon recent curriculum developments, program designs and research in English for Business and Economics (EBE) for non-native speakers of English, reflecting the English for Specific Purposes Newsletter's growing concern for and inclusion of specific English outside the realm of English for Science and Technology (EST).

EBE poses some special problems for the teacher or curriculum designer. First, a number of registers fall under this rubric: and second, although native-speaker materials abound, there are few texts & even less research available to assist non-native speakers to learn the characteristic lexical, syntactic & rhetorical features of EBE.

Yet the need for such materials is present and increasing. In U.S. universities, for example, business and management, once the sixth most chosen major among international students (1955-56) is now the second most popular.[1] For business students:

> ...the most important factor in admission to to graduate studies... and subsequent achievement is the problem of language. Oral (first) and written (second) communications are most important in limiting or inhibiting the students' achievement.[2]

In addition, courses in business, management and economics are becoming important to other majors (e.g., in engineering), since many of these students return to their home countries to accept managerial positions.[3] Foreign professionals who must improve their English for use in international trade also seek appropriate language and business instruction in this country.

The staff of the American Language Institute, San Diego State University, recognizing these growing needs, has both researched discourse and developed EBE curricula in two registers: academic, for students pursuing university study; and applied, for practicing businesspeople. Research and curricula developed by the A.L.I. or by curriculum designers in other institutions will be mentioned here.

It is hoped that this issue will both acquaint readers with EBE materials development and research possibilities and stimulate them to expand upon that which has already been accomplished.

REFERENCES

[1] "Survey Reports Foreign Student Exchange at All-Time High", IIE Reports, Vol. 3, No. 1 (April,1978).

[2] Lynch, Robert G., An Analysis of Foreign Student Problems Relative to Graduate Business/Management Studies in North America (Irving, Texas: Management Laboratories, d.) p.11.

[3] Stone, Donald, C. "Development Theories and Practices and Their Implications for U.S. Colleges and Universities", in Richard B. Myer (ed.) Curriculum: U.S. Capacities, Developing Countries' Needs: Report from the 1979 Conference on International Education, (New York: Institute of International Education, 1979) pp. 96-98.

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BRITISH & AMERICAN BUSINESS ENGLISH TEXTS

Mary Todd Trimble
University of Washington

In teaching scientific English, it matters very little whether a British or American textbook is used. Particularly in formal written texts, the differences are few enough to be ignored or to be handled without confusing students. But in business, there are considerable areas of difference between the two varieties of English, and textbooks from Britain or America need to be examined carefully in light of the students' needs. A student may use English only in his own country, may travel in either Britain or American (or another English-speaking country) or both, or may be stationed long-term in one or other. He is likely to have to comprehend both varieties, but may only need to use one.

It has been recognised for some time that the two countries follow different conventions in the format and style of letters. Usually a student will only need to learn to use one variety, but he may study in the States and later work for a firm that uses British English, or vice versa, and he is very likely to receive letters from both countries and so need to understand the implications of both styles in order to answer suitably. Some textbooks allow for this: for instance, Eckersley and Kaufmann, English and American Business Letters, Longman) and King and Cree wrote one more recently (King, F.W. and D. Ann Cree, Modern English Business Letters, Longman) that covers both British and American usage. However, business letters in texts by the Oxford University Press are at present, as far as I know, still all in British English, while Regents' Business Letter Hankbook, a collection by B. Steel de Meza of model letters in English and Spanish, uses only American English.

It is not only in their format and style that American and British business letter differ: they also involve the differing terminology of British and American business English. The difference in terminology is far greater in business that in science, and both teachers and students need to be aware of this. Collier Macmillan have recognised this in their Special English series by marking volumes in business areas, such as Banking and International Trade, as following British or American usage. Though the work they offer in other areas of language besides vocabulary is slight, their distinction between the British and the American books does make them helpful in teaching the basic vocabulary of their areas, especially as supplementary individual texts in a class of students with varied fields of specialization.

However, the language difference is greatest in areas such as office practice, the conduct of meetings, conferences and negotiations, and on social or semi-social occasions, and its here that teachers most need good materials to help them. Unfortunately, the better the text is for the setting it has chosen, the harder it is to adapt. The very qualities that make the Oxford course English for Business so good—its fully imagined and realistic setting, and the close integration of all parts of the course—make it almost impossible for a teacher to borrow and adapt to teach American English. It would be easier, though still very difficult, to adapt Menné's useful sets of Q-cards (materials for role-play practice in conversational business English set in, for instance, a sales meeting) to American business practice and language. (Menné, Saxon, Q-cards: Conversational Business English, Paul Norbury) Similarly, American courses would be extremely valuable. Few teachers have either the time or the experience of business to assemble enough of the right information to make this kind of role-play realistic: the participants need enough information to select one point of evidence from several in a discussion, and should have figures to refer to as required, rather than have to imagine them. It would also be useful to have truly International business materials using, for instance, meetings in New York, London, Sidney and Vienna, with participants from all these cities, and their reports and correspondence.

The place of publication of a textbook matters least for a student preparing to study academic economics. The language differences in the more academic areas of business are slight, and any student is likely in any case to be required to read both British and American texts. Any variation here would be between the modes of study and types of assignments he would need to be prepared for in each country, rather than in the language of the subject.

At the moment, there are more materials available for learners of British than of American business English. David Wyatt's recent book is a welcome addition to help with reading and listening comprehension skills in this area (International Economics and Development, (English for Professionals, American Language Academy and International Communication Agency), and hopefully will soon be followed by others. Oxford University Press and Longman have begun publishing books especially for the States, and any business English courses would be welcome. There are almost certainly unpublished materials in use that readers of this newsletter could supply information on.

INCORPORATING ECONOMICS AND BUSINESS INTO A SKILL AREA

Harvey M. Taylor, Deputy Director
English Program Economics Institute
University of Colorado, Boulder

Many students planning on careers in economics and business want to study just the English of those areas. Few available ESL/EFL materials are that specific. How can we avoid writing mountains of subject specific EFL mateirals and still prepare students to study in their major fields? At the Economics Institute we felt that advanced English students should read original text materials in their content area and that the lower-level reading courses should build toward that goal. Although the following describes just the reading program at the Economics Institute, it illustrates what has been done for other skill areas as well.

Under the general direction of Jim Ramsay, the Institute English faculty has developed an 8-level reading program for the Institute's 5-week terms. This program teaches reading attack skills, provides extensive reading of original economics articles, and includes self-paced, self-instructional reading practice on American cultural topics during 3 hours of class and 2½ hours of supervised self-study lab per week.

Basic reading attack skills are developed in the first 3 levels, using available EFL reading texts. Level 4 follows a similar text, but uses vocabulary-in-context exercises developed around phrases taken from the economics reader used at the higher levels. Ramsay introduced these exercises to motivate these intermediate-level students by supplementing the primary text with "meaningful" vocabulary and also to prepare them for the economics articles used at the higher levels.

In the 5th through 8th levels, reading attack skills are further taught from Reader's Choice (Baudoin et al), with the exercises done primarily as homework. Economics and business articles are selected from Economics: A Reader (Elzinga), an introudctory undergraduate economics reader. The articles are short, are by noted public figures in government, business, and academic, and involve a good combination of American business and government economic issues. Field-specific jargon and vocabulary are taught within the context of these articles.

This reader is the source for class and homework activities, including some discussion of content and related issues. However, the main emphasis is upon student analysis of the organization and development techniques used by the authors of each article. Students practice identifying topic sentences and supporting statements, make outlines, write summaries, rapid-read a few paragraphs in class to get main points, take quick study-notes, etc., and thus apply the reading attack skills taught throughout the reading program. Since the text material used in these last 4 levels is "genuine" economics, student interest remains high; they also soon learn that the better-organized articles are generally the easiest to work with.

Most Institute students enter the reading program at the 4th level or higher; therefore they are immediately involved in the economics/business content of the reading program. Some do object to taking a "reading course," since they feel they get sufficient reading practice merely by doing the homework for one of the Institute's economics courses, but the importance of learning how to read is explained to them. Furthermore, the student soon sees how much subject-related vocabulary and reading is included in each reading course.

Practically all Institute students are preparing to enter a graduate program in economics, agricultural economics, or business. As English abilities improve, the class hours of English are reduced, and the math, statistics, economic theory, and business-related courses taught by the Institute are substituted. Such courses are available at both the undergrad and grad levels, with advanced courses carrying transferrable University of Colorado credit. The focus of the English reading program is to prepare students to do the reading assignments for these Institute courses, and thus be prepared to read after they leave the Institute to enroll in graduate school throughout North America and England.

EDITOR'S NOTE: The question of text authenticity has been an on-going point of discussion for practicioners and researchers of English for Academic Purposes (EAP) and English for Science and Technology (EST). Whether or not to include adopted, synthesized, or unadopted texts as part of a meaningful syllabus has been debated by Henry Widdowson, T.F. Johns, Keith Morrow, and John Swales among others. Here, Louis Trimble briefly reviews the problem and brings it into focus for English for Business and Economics materials.

A DISCOURSE APPROACH TO PREPARING EBE MATERIALS

Louis B. Trimble
University of Washington

The term 'discourse approach' here refers to the process of relating all exercise materials in a given teaching unit to a prepared text. This approach to teaching English as a Second Language has the advantage of being more realistic from the student's point of view than is the 'sentence level' approach: the student sees the grammar, the lexis, the rhetoric of the language actually functioning in a meaningful context.

For a context to be meaningful, and thus provide a solid basis for teaching, it must, of course, fit the level of the student in terms of structural and lexical difficulty, and it must also provide those rhetorical notions needed by the student in his current and future uses of Englsih.

Finding texts to satisfy these requirements can seem a formidable job for the teacher. This may be true in those fields where only materials of advanced content level are available (e.g., nuclear science, some advanced areas in engineering); however, most fields provide concepts with no more than an intermediate level knowledge of the subject matter and of English. This is especially true of English for Business and Economics. In this field, the rhetorical notions and the grammatical and lexical elements can be embedded in a context tailored to fit the student's level in both subject matter and language ability.

The key word in this process is 'tailored'. While it is sometimes possible to find a 'genuine' text that contains those very rhetorical, grammatical, and lexical elements one needs, the odds favoring this are extremely small. More success—and often less effort—in taking advantage of the discourse approach can be had by either adapting or synthesizing to get the desired text.

Of the two processes, adapting is the more difficult. It requires a 'genuine' text that is fairly close to what the materials writer wants. This text is then altered by changing as necessary vocabulary items and grammatical elements (e.g., change active verbs to passives or vice versa). Making changes in the rhetoric is also possible but more difficult: for example, generalizations might be rewritten so as to make them into formal definitions.

Synthesizing, on the other hand, is at first more time consuming but later less so. It is the process of choosing an area of a subject, reading in several (three is a good minimum) sources and then putting the information from the sources into a text. The advantages include the opporutnity to tailor the size of the text, to build into it those rhetorical notions and grammatical and lexical points most needed by the student, and to phrase the sentences in such a way that they can be most easily used as bases for exercises of whatever types are wanted. The drawbacks to this approach are that it is a process most teachers went through and disliked during their undergraduate period—preparing the term paper; and that for those who are not 'natural' writers, several revisions may be necessary to get the text exactly as wanted.

Although any of the three approaches—taking genuine texts, adapting genuine texts, or synthesizing from genuine texts—provide a sound basis for producing functional exercises, the synthesized texts offers, by its very nature, a wider range of possibilities. The following excerpt from a synthesized discourse unit contains material for developing lexical, grammatical, and rhetorical exercises. (The level is intermediate.)

READING INTERNATIONAL BUSINESS

What does the term International Business mean? There is one simple definition: "International Business is trade between different nations". This makes International Business just another way of saying "Foreign Trade". However, this is a very old definition and a very limited one. From the point of view of history, it is a good definition, since if we look at the history of business we can see that business between nations almost always related to directly trading goods for other goods or trading goods for precious metals.

In recent times, the concept of International Business has become much bigger. Because it covers so many ideas that it did not cover before, International Business is no longer a simple term to define. One attempt to define it states, "International Business activities include services, the manufacture of goods, the movement of goods from a country (exports), the movement of goods into a country (imports), the investment of capital and the ownership of business enterprises in countries not one's own, and the moving of people and technologies between countries."

(Editor's Note: Exercises for vocabulary, prefixes, suffixes, anaphora, and verb forms following this reading have been deleted due to space.)

* * *

ENGLISH FOR BUSINESS AND ECONOMICS

Patrick Carmichael and Judith McCarrick
Curriculum Development at the
American Language Institute
San Diego State University

In the spring of 1977, courses in English for Business and Economics (EBE) were initiated at the American Language Institute, San Diego State University, in order to satisfy student requests and broaden the scope of our academic offerings. The decision to develop an EBE syllabus was made after considerable reflection, since the validity of such programs was being questioned by colleagues and a large number of program directors. However, in light of recent EST success stories, we felt that the decision to go ahead was educationally sound.

Initially, we assessed student needs within our university-bound, academic population, reviewed the literature of programs in process, examined the business school's requirements, analyzed standard texts and periodicals, and developed and tested intermediate and advanced EBE materials.

After EBE classes had begun and courses had been analyzed, we realized that there were a number of inherent problems. Much of the first curriculum was grammatically structured with many of the "situational exercises" more pedogogic than natural in language use. In some sections, grammatical features were not consistent with the features found in the sophisticated prose readings. Basically, we had created a traditional structurally-based syllabus with business and economics as its theme.

Another major problem area was class scheduling. We were striving for a discipline-based EBE program within our academic setting; however, we tried to build all the EAP as well as EBE skills into one syllabus. This approach didn't work. Students wanted more interaction with others in the Institute and demanded certain study skills, such as TOEFL preparation and listening skills, that were missing in the EBE syllabus. Obviously, revision was needed.

Realizing that major significant changes in syllabus design and course integration were necessary, we reviewed David Wilkins', Notional Syllabuses for a number of forms pertinent to business situations (e.g., reason and judgement, evaluation, and assessment) and selected several necessary semantico-grammatical categories (e.g., time: points in time, duration; frequency; and location). Revisions began with updating materials and designing a notional component to replace the earlier grammatical section. The EBE course was then integrated into the EAP program so that students attended regular structure classes in addition to attending the EBE, notionally-based class. The value here lay in the fact that the students were acquiring certain academic skills necessary for entrance into the university, certain langauge and structural forms necessary for the business environment, and certain social needs necessary for continued motivation.

When taught, the first revision met with more success than the original set of mateirals. Register and role-playing exercises were included which dealt with language and behavior in the American business setting and notional/functional materials presented students with a variety of forms from which to select appropriate, communicative devices. From our success with the first revision, we adopted the position that neither the structural approach nor the notional/functional approach by themselves could satisfy the needs of our disciplined-based, pre-study EBE students. The integrated program in which students received both exposures seemed to serve their needs best.

Responding to inquiries by a number of practicing businesspeople, we began to design another set of materials in the spring of 1979 for an intensive, short-term EBE course. This course offered language instruction, lectures by members of the business community, films coordinated with the text, and field trips to sites within the business community. Students participated in twenty hours per week of classroom instruction, with five additional hours to include field trips and lectures.

The text itself was by far the most communicative we had written to date. Each unit contained register exercises, role plays, dialogue analysis, topics for discussion (see examples at the conclusion of this article) as well as readings, text analysis and discourse analysis, (i.e., rhetorical functions). A total of four units were designed, each unit having the same basic format. The target level was high intermediate to advanced; however, some students of lower proficiency had to be accomodated. The course was very successful and allowed for a high level of interaction, both socially and educationally. Because of the students' strong backgrounds in the business field, we were able to use them as informants in a large number of international concerns e.g., international banking, comparisons and contrasts between stock exchanges, and managerial styles. All allowed for a more "global feel" in subject matters and more motivation in language matters.

We now have revised materials in two EBE registers, academic and applied, which serve as resources for yet another EBE component--contract EBE programs. Requiring clearly defined and more pragmatically oriented goals, these are designed for either occupational or educational purposes are are integrated with or independent of our academic program. The materials reflect what we have learned in syllabus design over the last three years and the influences of ESP research both in the U.S. and England. Continued evaluation of materials reveals the need to constantly update, revise, and, at times, rewrite. However, these three activities seem to be inherent to special purpose English syllabus design and fundamental to an effect languae syllabus.

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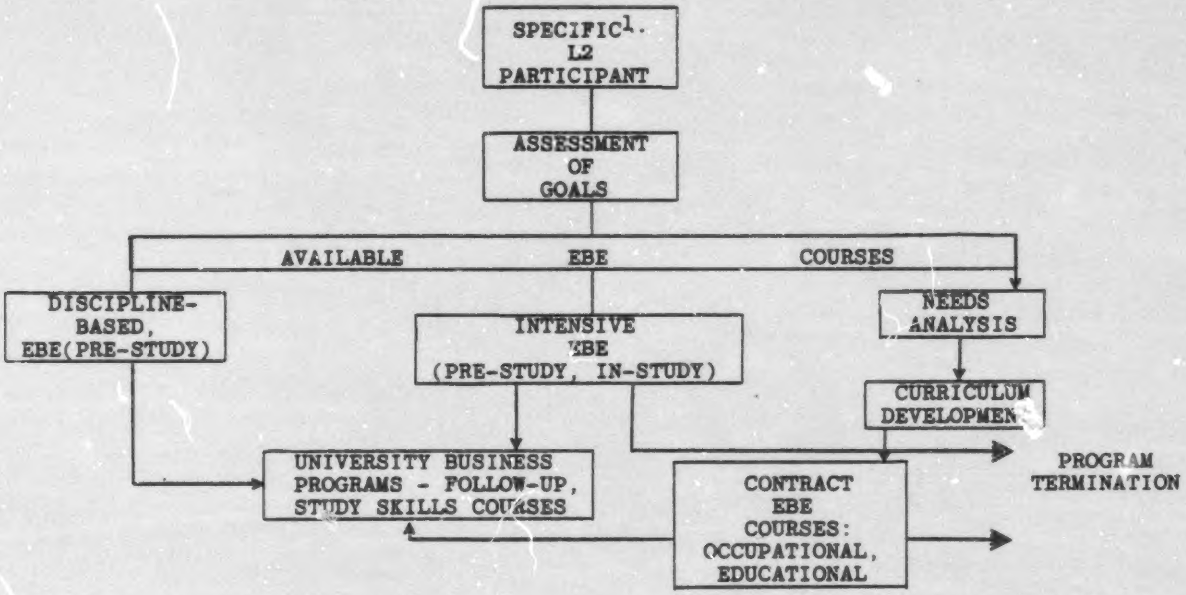
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(PRE-STUDY, IN-STUDY)
NEEDS
ANALYSIS
CURRICULUM
DEVELOPMENT
UNIVERSITY BUSINESS
PROGRAMS - FOLLOW-UP,
STUDY SKILLS COURSES
PROGRAM
TERMINATION
CONTRACT
EBE
COURSES:
OCCUPATIONAL,
EDUCATIONAL

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A CALL FOR PAPERS

The 1980 CATESOL (California Teachers of Speakers of Other Languages, Convention will be held at the San Diego Convention Center (April 18-20). Abstracts in ESP or on other ESL teaching/research subjects are invited. (Deadline, December 15).

Send 250 word abstract and a 3 x 5 card with name, address and abstract title to:

Ann Johns, Director
American Language Institute
College of Extended Studies
San Diego State University
San Diego, CA. 92182

COHESIVE ELEMENTS IN TWO MODES BUSINESS AND ECONOMICS DISCOURSE: A COMPARISON

Ann M. Johns
American Language Institute
San Diego State University

The staff of the ALI, SDSU, has designed its EBE curricula principally for two populations: those who will study business formally in a university setting, the academic EBE students; and those who will immediately employ business English in a practical setting, the applied EBE students.

The curricula are overlapping and diverse; for a number of modes, both spoken and written, are included in each of the two categories. In academic EBE, for example, the English of every major (e.g. Marketing, Management, Accounting) comprises a somewhat different set of linguistic features. In applied EBE, there are modes ranging from spoken colloquial to highly stylized formal written (as in contracts), each representing a number of lexical, syntactic and discourse features.

It is the purpose of this article to discuss a study of one set of features, cohesive items, in two applied written modes, the letter and the report, in order to point up the differences among modes even within this one category.

In this study, twenty business letters, (10 sales, 10 adjustment and 5 miscellaneous) and twenty annual reports (chosen at random from the list of companies included in the Dow Jones averages) were examined for cohesive element incidence and type. Halliday and Hasan (1976) was employed as the model for categorization and coding.

The results indicate significant differences between the corpuses. Lexical cohesion, for instance, represents nearly one-half of all cohesive items found in letters, but the sub-category of lexical item (e.g., synonym) varies among letter types. In annual reports, 79% of all items coded are lexical, with repetition of an item, usually the company name, representing 39% of this total.

Conjunction, the category which writing instructors often emphasize in the teaching of cohesion, comprises no more than 8% of all lexical items in the corpuses studied. In this category, the corpus type is also significant: annual reports include a much greater variety of conjuncts than do letters, in which the simple AND and BUT are common.

A third category, reference, also includes a diversity of items. In annual reports, written formally in the third person, THIS is the most common of reference elements. In letters, however, YOU appears most frequently.

What does this study suggest to curriculum developers and instructors about EBE? It further demonstrates that, as in EST, there is no one, unified register; that each basic mode should be examined for essential features before accurate and comprehensive EBE materials can be developed. (A more complete discussion of this study and its curricular implications will appear in the Proceedings of the American Business Communications Conference, Seattle, 1979).

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FOREIGN-BASED INTENSIVE EBE TRAINING — CURRENT OBSERVATIONS

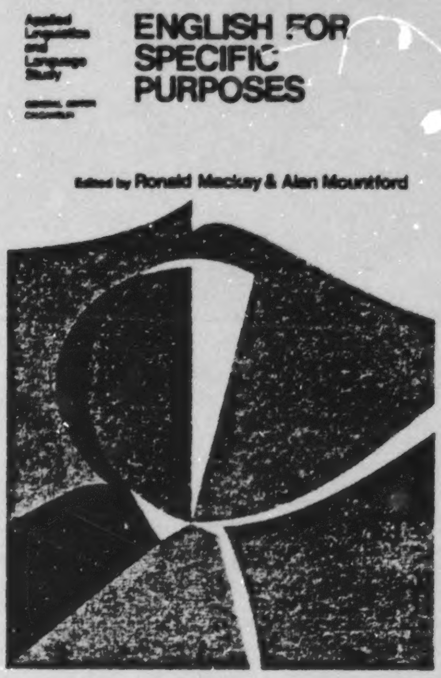
Stephen Hanchey,
ELT Consultant
San Francisco, CA.

With increasing interest among international business firms for specialized English language training with an American orientation, programs and individuals working in EBE may find themselves asked to conduct short-term programs away from their institutional bases. Such endeavors pose problems different than many ESL teachers have faced, and require problem-solving skills which go beyond good materials or teaching.

Recently I was asked to coordinate a short-term intensive program for a northern Italian bank group. Because of the distance, all advance planning had to be done by phone or letter. As a trainer I like to know the maximum information about the trainees' jobs and their language skills in advance, but in this case I had time only to assemble a staff and took off for Milan to meet 19 young Italian MBA graduates who were candidates for management positions with the bank group.

The short lead time before the start of the program (at a bank-owned country villa converted to "conference center and retreat") necessitated bringing most course materials from the U.S. Current ESL materials are in short supply anywhere in Italy, and ordering them directly from the publishers was out of the question. Good photocopy, office and video equipment were placed at our disposal, and helped overcome the difficulties caused by having insufficient quantities of any one text for each student.

The English-speaking abilities of the trainees turned out to be slightly more advanced than we had anticipated, as evidenced by the preliminary interviews I conducted at each place of work or study. Using the Foreign Service Institute (FSI) test as a measure, most trainees were in the 3 to


ENGLISH FOR SPECIFIC PURPOSES
Edited by Ronald Mackay & Alan Mountford

English for Specific Purposes

R Mackay and A Mountford

An important and practical survey of English for specific purposes. The book reviews current approaches in this quickly-developing area, goes on to describe the thinking behind the writing of three ESP textbooks, and finishes with a series of illuminating case studies. Throughout, the emphasis is on practical aspects so that the book will be of real help to ESP teachers, course designers, and materials writers.

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CURRENT OBSERVATIONS CON'T...

3+ speaking proficiency range. The Michigan Test and a writing sample were also used when the program began. The bank management were agreebly flexible in any requirments for the training plan. Aside from such ill-defined requests as "specialized" and "full immersion" (a concept which commercial language schools in Europe have been instrumental in promoting), we were free to design our own content areas. As behaviorally-oriented teachers and trainers, we were eager to involve the trainees as much as possible in setting objectives both for the course content areas and for their own learning during the program. We learned that in spite of an American-style MBA degree, individual goal setting was a new experience for most of the students. Eventually, most were able to contribute to and agree upon a graduated sequence of Performance Objectives between the FSI levels of 0.5 and 4.5 (nine levels). These objectives were categorized into nine different Skill Areas ranging from "Listening-Understanding" to "Reporting" and "Information-transfer-Writing". The Skill Areas grouped themselves into three main curricular areas:

ESL -	(40 hrs.)	Review of intermediate & advanced grammar; Advanced Listening Comp. (Using US-produced audio material)
EBE -	(40 hrs.)	Business Communications; charts & graph data interpretation; Advanced Reading Comprehension (from Wall St. Journal); Specialized Vocabulary.
Communications -	(30 hrs.)	Small group discussions, simulations & role plays; Video Laboratory (student produced).

The group adopted the concept of "total immersion" from the start, and carried out all daily activities (sports, meals & entertainment) entirely in English for three weeks. This feature of the program placed the greatest demands on the American staff. We were five native English speakers, and the need for our continuing presence at all meals and during other activities reduced planning and preparation time to a minimum. In retrospect, this one aspect of the program probably contributed most to the progress almost every student made. Being isolated with experienced and supportive native ESL teachers gave each trainee a confidence boost which as much as ten years' previous study of English had not accomplished.

A complete assessment of the success of any program such as this one would have to involve follow-up studies of its effectiveness in helping these future international bankers to do their jobs. Ongoing, part-time instruction would also be advisable, but unlikely in view of the other demands on these employees during their first few years on-the-job management training.

Whatever the long-term benefits, executive "retreat" courses such as this one are likely to continue to be used by international business management as the easiest way to provide their executives with the English language skills deemed crucial for their careers.

ENGLISH FOR SPECIFIC PURPOSES: A FACULTY SURVEY

Completed by Ann Johns
American Language Institute
San Diego State University

In a randomly distributed questionnaire on necessary English skills returned by one hundred forty members of the San Diego State University faculty representing all disciplines, eighty-four respondents indicated that general English was more important than ESP, thirty-eight preferred the special English of their disciplines and eighteen were undecided. The engineering faculty was evenly divided between those favoring ESP and those preferring general English. The business professors were less divided: twelve indicated that general English is more important; only three checked special English.

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ON THE STATE OF ESP

Karl Drobnic, Director
EST Clearinghouse

As we enter the 1980's, it seems evident that ESP, learner-centered methodologies, and pedagogical applications of second language acquisition theory will be three major influences on ELT in the coming decade. Each stresses meaningfulness as a basic ingredient for a language program; an area of common ground that John Lackstrom has explored in a series of extraordinary lectures at the 1978 and 1979 EST Summer Institutes. Whereas ESP a short time ago occupied a position somewhere on the fringes of our discipline, Lackstrom has professed a synthesis that directs ESP decidedly towards a mainstream position in ELT.

Presentations in the Forum Sessions by participants at the 1979 Institute addressed issues in program implementation, materials development, discourse analysis, the relationship to technical and scientific writers, course models, testing, and using video. The Forum Sessions reflect a varied and extensive body of expertise and experience, much of it accomplished in environments of difficult circumstances.

Another indicator of the state of ESP are the Special Issues of the Newsletter. In Year 1, Ron Mackay surveyed ESP in Canada. Year 2 specials highlighted a publisher's view of ESP and profiled the INELEC program in Algeria. Year 3 specials have dealt with VESL, ESP in Kuwait, the 1979 EST Institute, and EBE. In the near future are special issues concerning Technical English in England and the multi-faceted ESP program at Oregon State. Other specials are in the planning stages.

The growth of the Newsletter also reflects ESP's development. From Issue 1, a 4-page announcement of the formation of the Clearinghouse, the Newsletter expanded to six and then eight pages. In laying out this issue, I had enough material on hand to fill a small journal, and for some time I have been referring people with long articles to other publications with more space. The Newsletter cannot expand further without an additional $3000 per year and currently has no prospects for such.

I do not mean to discourage people from sending their work to the Newsletter/Clearinghouse, but wish to remind the readership that 6-8 typewritten, double-spaced pages is the limit for Newsletter articles. Longer works can be abstracted in the Newsletter, placed in the Clearinghouse, and probably published in one of the publications listed in Morray's Annotated ESP Publications in Issue 18.

The problems encountered by ESPMENA with their printing arrangements have deprived ESP of the foremost journal for more than a year, and although excellent issues of EST/ESP CHILE and AL MANAKH have compensated somewhat, there is still much more material ready for print than can find timely publication.

As quickly as possible, this material is placed in the Clearinghouse for direct distribution, but the Clearinghouse has far outgrown original expectations and its systems are overloaded. At this point, however, the problem appears temporary and solvable. Material submitted should be camera-ready as there is no provision for re-working it.

Despite the amount of material the Clearinghouse has on hand and the articles that have appeared in various publications, the research base for ESP is still paper thin. Bley-Vroman's "Purpose, Device and Level in Rhetorical Theory", a paper which suggests research sorely needed in ESP, has to date languished. Work in the rhetorical-grammatical domain is still largely that of the original University of Washington group. It is frequently cited in work coming out of the graduate programs and in various publications, but rarely extended. More often, it is misrepresented.

In terms of commercial textbooks, the picture is brightening. Many of the more useless texts, like the largely shoddy English for Careers series by Regents, have been supplanted by good texts for various needs by Longman, Nelson, American Language Academy, Heinemann, OUP and ICA.

In addition, the Clearinghouse reference book, ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY has sold out its first printing of 500 copies and a second printing is now underway. We hope soon to turn distribution over to a major distributor/publisher. We also await publication of the Selinker, Tarone, and Hanzeli volume which is due out soon.

Turning to the future, the ESP Clearinghouse Meeting will be held at TESOL San Francisco in the Imperial Ballroom. It will be a scheduled event in the conference program and at a convenient time this year. We will have one hour. I am currently preparing an agenda which I hope will reflect a wide spectrum of readership concerns and opinion. Those who would like an item placed on the agenda are encouraged to let me know as soon as possible. Among other things, I am hoping to arrange five-minute status reports on Medical English, EBE, VESL, and ESP Teacher Training by specialists in each area.

Last year's meeting at TESOL Boston resulted in several Special Issues, the national ESP Survey (imminent), widened Newsletter coverage, and debate on an ESP SIG. To a large extent, the shape and direction of the Year 3 Clearinghouse activities were determined at TESOL Boston, and outlined in Issue 25. TESOL San Francisco should play a similar role for Year 4.

ESP continues to be a favorite theme at conferences at all levels. MEXTESOL, ORTESOL, and the NAFSA Regionals in California and Oregon have featured ESP as a major topic so far this year and CATESOL San Diego in April will be heavily ESP. Those who are giving presentations or are arranging programs at various conferences and workshops should keep in mind that the Clearinghouse provides free information packets for distribution. These include sample copies of the Newsletter. Your request should specify the approximate number of packets needed and allow four weeks for delivery in the U.S., longer elsewhere.

By now, you should have all received an announcement with details about the 1980 ESP Summer Institute. The 1978 and 1979 Institutes were a two year cycle conceived at TESOL Mexico. At that time, ESP training was virtually non-existent in the U.S. and the Institutes were intended to fill a need. It was expected that by 1980, ESP training would be readily available in graduate schools. At this point, however, that is not the case. We have therefore scheduled a 1980 ESP Summer Institute, and if it appears financially feasible, will go forward with the plans.

Short-term summer institutes are expensive and intense. Participation is difficult for individuals without at least partial support from an institution, and to date the Clearinghouse has been unable to locate a source of funds to offer scholarships or other assistance. The 1978 Institute had tuition revenues of $5000 and direct expenses of $4700. The 1979 Institute had tuition income of $15,100 and direct expenses to date of $15,000. In both cases, Oregon State absorbed indirect costs. Projected expenses for the 1980 ESP Institute are $28,000.

In sum, ESP enters the 1980's as a respected approach to ELT. Having experienced rapid growth in the past few years, ESP has a respectable identity and a valid place in langauge programming, a considerable accomplishment for the 1970's. Its immediate needs include basic research, more teacher training, a regular journal, and a funded organization committed to its advancement.

✦

ESP IN THE PEOPLES REPUBLIC OF CHINA:
A REPORT BASED ON A RECENT SURVEY

J. Ronayne Cowan
University of Illinois

This report stems from a three-week visit to the Peoples Republic of China (PRC) in May and June of 1979. The author was a member of a team of EFL specialists sent to China by the International Communications Agency in response to a request from the Chinese Ministry of Education. During our stay, we visited twenty-one secondary and tertiary institutions in 5 cities: Beijing, Nanjing, Suzhou, Shanghai and Gwangzhou (Canton). A complete list of these institutions and a discussion of several aspects of EFL in the PRC appears in a forthcoming article in the TESOL Quarterly: "English Teaching in China: A Recent Survey" by Cowan, Light, Mathews and Tucker.

As stated in that article, the Chinese have, ostensibly, made a large-scale committment to the teaching of English. The rationale for this committment is clear--English is viewed as the primary access to Western science and technology, presently a top priority for the government. One might, therefore, expect to find wide spread and concerted efforts in the teaching of English for Special Purposes, but this is not the case. There are two reasons for this, the first being a reluctance on the part of Chinese educators to break free from the established pattern for foreign language instruction. EFL, as it is currently practiced in China, is cut in the mold typical of the 1950s and 60s, where all four skills are taught with, more or less, the traditional descending emphasis. The Chinese have not, as yet, given serious consideration to alternatives that involve the promotion of a single skill to the exclusion or deemphasis of the other three (e.g. ESP courses which focus on the development of reading proficiency), even though such programs are clearly more congruent with professed national goals.

Although there is a fair amount of interest in ESP, its legitimacy is still debated by English teachers at national and regional conferences. The arguments against ESP have a familiar ring, to wit, that there is nothing "special" about the language of science and technology, so the modernization of China would be better served by maintaining the existing four skills format and effecting improvements at the secondary school level, with a view toward providing all graduates who go on to universities with a competence in English adequate for studying science. Not withstanding the intrinsic appeal of such an argument, the Ministry of Education has decided to examine what benefits may be gained from ESP instruction, and has, therefore, designated two universities, Qinghua in Bejing, and Jiaotong University in Shanghai, as Information and Research Centers for ESP.

A visit to Jiaotong University revealed the second reason why so little progress has been made in instituting special purposes language instruction in the PRC. The members of the English Department were eager to assume this new role of researcher-innovators, but they openly admitted knowing hardly anything at all about ESP. For the time being their Information and Research Center will concentrate on assembling information about this new field. One of the younger faculty members stated that he was planning to undertake a computer-assisted analysis of the syntax and lexicon of scientific literature. Our team attempted to summarize British and American perspectives on ESP and left behind a copy of the Trimble, Trimble and Drobnic volume, English for Special Purposes: Science and Technology as well as bibliographies and reviews of ESP materials which had been generously donated by Karl Drobnic. We did not visit Qinghua University, but British Council representatives in Shanghai informed us that two academic consultants recruited by the Council would hold a course on the basics of ESP for faculty members of that institution beginning in January of 1980.

There appeared to be no standard English curriculum for the students majoring in the social and natural sciences, i.e. those students who require some form of EAP. Figures ranging from 290 to 360 contact hours were quoted as the total exposure to English which these students receive. The norm seemed to be something on the order of 4 hours per week spread over the first two years at the university. This should be compared with the 14 hours per week which an English major receives. The primary objective of service English courses, we were informed, was to teach reading skills, however, since many students in the sciences may be sent to English-medium countries, increasing attention is being given to oral skill development.

We had few opportunities to visit classes where EAP was the objective, so we cannot say with any surety what form the instruction takes. I suspect that many classes in service English programs are run like the one for biology students which we saw a Zhang Xiang University of Gwangzhou. The only activity was translation from English to Chinese. The teacher would read an English sentence (perhaps for the benefit of her visitors) and then ask for volunteers to render it into Chinese. The materials being used in this class had been compiled by the teacher. They consisted of 16 texts, which were sections from articles or textbooks on agricultural and biological chemistry. The source of each passage was quoted. As is the case in all Chinese ESP materials, each passage was followed by from 60 to 80 vocabulary items which appear in the text. Each of these had a Chinese gloss. I was struck by the complexity of the topics which ranged from "proteolysis and digestion of protein" to "studies of enzymatic production of ATP." Since I could not comprehend anything in these passages, I was curious to know whether the teacher had special training that permitted her to judge the accuracy of the students' translations. When queried on this she responded that her only training was in English, but that she attended the regular biology lectures and this had increased her understanding of the subject. Nevertheless, she admitted to some uneasiness about the adequacy of evaluating the translations. The compilation of the texts (some of which appeared to be only sections of articles) she was using had apparently been accomplished without much assistance from the regular science faculty. These ESP materials, perhaps because they were the work on one instructor, were atypical of the in-country produced teaching materials we saw.

At least five institutions--Peking Foreign Languages Institute, Peking University, Fudan University, Jiaotong Polytechnic University and South Shanghai Medical College--have writen experimental ESP materials individually or in conjunction with one or more institutions. Some of these books are available to the general public through the foreign language bookstores in the larger cities, but others are only in bound mimeograph form being tested at various institutions. We were able to obtain quite a few samples through purchases at bookstores and as a result of requests made at the institutions we visited. The following description of the first two volumes of a planned four volume series entitled English for Science will illustrate the basic format that is, with very few variations, used for all ESP materials that we saw in the PRC. The first three volumes of the materials, which were compiled by faculty members from Fudan University, Shanghai Teachers College, Shanghai Technical University and Zhang Xiang University, were given to us by Professor Yo Ming Lian, Director of the Common (Service) English Section at Fu Dan University in Shanghai.

Volume 1 begins with a lesson on the English alphabet and is followed by 8 lessons on "phonetics" i.e. the phonemes of English. These lessons have reasonably detailed diagrams which describe articulations of the vowels and consonants and are accompanied by exercises which have examples of the sounds and minimal pairs. Grammar is introduced with lesson 9 and the pronunciation practice now shifts to intonation patterns. Each new lesson begins with a series of short dialogues that have accompnaying illustrations. All "new words" in the dialogue appear in phonemic transcription (with phonetic brackets) and glosses in a NEW WORDS section. Next came assorted notes on structures used in the dialogue; for example, the contracted form will be explained if it is used along with the uncontracted form. Then follow three or four, "classroom expressions" and a set of exercises which treat both grammar (fill in the blanks and substitution tables for mechanical drills) and pronunciation (sentences to be read aloud for intonation practice; these have phonemic transcriptions under them with lines marking rises and falls in pitch). Following this is a short section entitled READING

MATERIAL, which, in the earlier lessons, consists of a reintroduction of the same structures used in the preceding dialogues with a few new words, but in the later lessons takes the form of short passages. These have a science related theme as can be seen from their titles--"Our Laboratory", "The Earth", "Water", "Where Can You Find Hidden Air", "The First Experiement"--but the content of these TEXTS, as they are called later in the book, is trivial and uninteresting. Each text is followed by a list of vocabulary items arranged in the manner described above. Lesson 18, oddly enough, begins with a poem: "Kite Weather", and here the list of new words rises to twenty-five. The grammar topics which are covered beginning with lesson 9 are : (9) basic parts of speech, (10) plurals and subject pronouns, (11) subject pronouns + be, (12) subject pronouns +have (negative), (13) there insertion, (14) transitive vs. intransitive verbs; object and subject pronouns contrasted, (15) negation of verbs (modal auxiliaries excluded), (16) simple NP modification; WH questions, (17) locative adverbial phrases; present progressive with negation and subject-verb inversion. Lesson 18 is a review with no new grammar. It is followed by 5 supplementary reading passages, four of which have a science related theme. It is clear, then, that volume 1 is nothing more than a rather mediocre 'general' EFL textbook containing elements of the design used for EFL materials produced in the late 50s and early 60s. The only justification for classifying it as a book intended for science majors is the content of each lesson. It certainly does not merit being called an ESP textbook.

The format used in the second volume is very similar to that of Volume 1. Each new lesson begins with a reading passage of about 200 words; this is followed by the list of NEW WORDS that appear in the passage. A section entitled NOTES, containing short explanations in Chinese of certain multi word expressions (sometimes idioms, sometimes verb + preposition combinations) that appear in the passage, follows. A grammar explanation section comes next, followed by a list of expressions that might be used in an English class, and a section of EXERCISES, which range from true-false questions based on the passage, to mechanical exercises requiring the student to write an appropriate form in a blank or change a verb to another tense. After this section there are even shorter reading passages (about 2 paragraphs in length) on the same subject as the introductory text, then a READING MATERIALS section followed by another list of NEW WORDS, and section entitled PHRASES AND EXPRESSIONS and finally, NOTES, which are really just a few questions about the preceding passage. The grammar topics treated in this volume are: (1) past tense, negative and question forms of the verb be and regular verbs, (2) the modals will, can, may and must (going to is included); the epistemic meaning is indicated only for must, (3) present perfect tense (4) the comparative and superlative forms of adjectives, (5) cardinal and ordinal numbers, (6) the passive, (7) the interaction of dative movement and the passive, (8) extraposition and some for/to complements that do not undergo extraposition, (9) subordinate clauses introduced by before, as, when and since. This volume has 12 supplementary readings, each of which has a science theme. There are three appendicies, one listing the irregular verbs, on containing the grammatical terms used in the book, and one which is actually a glossary of all the vocabulary which appears in the text.

All of the ESP materials we saw had, with a few minor variations, this basic design. It is essentially the same one used for the "unified" English textbooks prescribed for secondary schools and for the in-country produced materials used at the universities for English majors and at special schools which require a heavy dosage of language instruction, such as the Institute of Foreign Trade in Bejing. There is, therefore, a pronounced uniformity in design for all EFL materials written in the PRC to date. As is evident from the foregoing description of English for Science, each EFL textbook tends to start from the same point, assuming no previous knowledge of English. The Chinese tend toward "series" production, and the notion of writing a simple textbook that presupposes a certain level of English proficiency, has not yet gained favor among the consortiums of scholars that have cooperated to write the textbooks presently in use.

One direct result of this tendency to write series is that a lot of passages found in the first two or three volumes of a multi-book ESP series simply talk about science at the level of the Readers Digest or even below it. They are, therefore, frequently not authentic models of the register which the students will eventually be faced with. There were a few exception, most notably some of the passages which appear in the latter half of the second volume of some material produced by South Shanghai Meidcal College and one or two passages in a book entitled Elementary English for Radio Engineering, written by four authors whose affiliation is not given. Even when Chinese writers use original documents or adaptations of them for ESP materials they are often insensitive to features of text which are critical for reading comprehension. For example, in the radio engineering text refered to above, one passage describing NPN transistors (p.237) uses a diagram to clarify how the amplitude of the current can be varied by changing the current flowing in the base circuit. This diagram is quite important to understanding the process described in two paragraphs of the passage, but it is simply omitted from the text.

Practically every EFL textbook written by a group of Chinese EFL experts carries an "experimental" designation. As a general rule, only the institutions involved, not the authors, are identified on the cover. Since English is viewed as a "weapon" to be used "to serve the revolution", all in-country produced EFL materials contain political messages. ESP materials are not exempt from this dictactic requirement, and it is quite common to find comprehension passages extolling the scientific accomplishments inspired by China's leaders or technological feats achieved by exceptional, politically conscious workers.

To summarize briefly, ESP, in the Peoples Republic of China presently displays the level of sophistication in theory, methods and materials design which characterized the earliest efforts in this field fifteen years ago. Chinese English teachers have virtually no knowledge of the work done by British and American applied linguists or the multi-national research and development carried out under the auspices of the Council of Europe. They are, however, eager to obtain as much information about ESP as they can, and what knowledge they do acquire will most likely be provided by the British Council. Presently, the Chinese do not distinguish any special considerations that should be taken when mounting ESP courses. There may be a slightly greater emphasis on translation, but basically, language instruction for scientists and technicians is approached from the framework of general EFL training, and, as a result, ESP materials contain the same elements found in general EFL textbooks with the exception of subject matter orientation.

* * *

BOOK REVIEW: ENGLISH IN THE MEDICAL LABORATORY,

John Swales and Paul Fanning.
Sunbury: Thomas Nelson, 1980. 106pp:
student's text; also teacher's key.

REVIEW BY: Diana E. Adams Smith, MSSD,
Faculty of Medicine,
Kuwait University

To the best of my knowledge this is the first ESP textbook written specifically for medical technicians and others who work in medical laboratories. Developed from materials originally written for the Institute of Medical Laboratory Technology at the University of Khartoum, it could also be used with medical, nursing, and allied health students as well as students of life sciences whose courses involve laboratory training.

The course is pitched at the intermediate level, the principal aim as expressed in the teacher's introduction being to provide access to the English found in instructional medicine. Thus it is designed to help medical students and trainee medical technicians respond effectively to the instructions given in laboratory manuals and similar materials, and also to develop their ability to write answers in English to examinations on medical technology procedures. The writing exercises are graded from simple one-word fill-ins to short controlled paragraphs. Since the writing component arises from diagrams and comprehension passages, many of which require careful study and purposeful close reading, the reading passages comprise a second major part of the book.

As might be reasonably expected in a course based on reading and writing instructions, the directions with very few exceptions are models of clarity and precision, and even the more complicated assignemnts can be carried out correctly as long as students read carefully and perform tasks in the sequence given. It would therefore even be possible to use the book as a self-study text, provided that someone were available to correct written work and provide guidance if problems arose. The materials are sufficiently flexible to be used in this way with advanced students, while with a class possessing only rudimentary knowledge of laboratory procedures units can be initially introduced by the teacher and much of the work done orally or as a class exercise on the blackboard, only a selection being assigned for writing at home. It is possible to play the oral element up or down according to class needs and time available.

The authors describe their general approach as one of "modified functionalism." All 8 units of the book arise from the language of instruction. Units 1-3, Introduction to Instructions, Linked Instructions and Instructions and the Passive, establish a broad base of relevant technical and subtechnical vocabulary and concentrate on the instructional verb with its typical functions and forms. Units 4-8 focus on other aspects of instructional English. Unit 4, Making Instructions More Precise, considers instruments, methods, and how operations are carried out, while Unit 5, Operations and Results, emphasizes the various uses of active and passive verb forms. Unit 6, Time and Purpose in the Laboratory, is an extension of the work on adverbs in Unit 4; Unit 7, Actions and States, explains the difference between action and state and works through the ways in which states are typically expressed in medical terminology. In Unit 8, Alterations in Clinical Test Procedures, the writing tasks are freer and the readings more advanced. Topics treated include if in sentences concerned with alternative operations and conclusions, should and can, and the language of colours.

At the time of writing of this review English in the Medical Laboratory has not yet been released by the publishers; consequently I am not in a position to discuss the final format. The few typos existing in the galleys which I was allowed to use for a trial run of the materials will probably have been corrected by the time of publication, and the layout in the rough draft is attractive and well-spaced with varied type-faces and plenty of clear artwork.

The book is enjoyable to use because it is never boring, either for class or teacher. Swales and Fanning do not leave the student, half asleep in his chair to parrot the required answer by direct repetition of a sentence from the text; rather, they demonstrate powers of inventiveness unusual in ESP materials writing. Even a passage on the humble Bunsen burner, introducing the concept of linked instructions, requires the student to (1) label a diagram and then draw in some additional apparatus; (2) answer a series of true/false questions, all demanding careful reading and thorough understanding; (3) respond to a series of "what might happen if?" questions; (4) find in the passage a sentence expressing a precaution; (5) find a sentence with more than one imperative verb. Some of the questions are really thought-provoking; e.g. "Place the following in order of increasing dryness: dampened or moistened/dessicated/dry/ saturated or soaked/ wet." Others require the use of visualisation and logical thinking in establishing the sequence of events. An example requiring visualisation is the following:

Read the following short description of apparatus which might be found in a medical laboratory, and try to draw a diagram to show its meaning.

> A test-tube lies tilted[1] on the bench at an angle of about 20°. It is supported close to its open end by a metal rod about 3 cm. in diameter. The mouth of the tube is plugged with cotton wool. Inside the tube, its surface lying level, is a small amount of solidified fluid.

"English in the Medical Laboratory is the latest in a number of recent books to bear out the statement that "materials born in the classroom are often better than those produced by professional course-writers working in a vacuum" (R. Young, ELTJ 34:1, p. 76). Let us have more of them.

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[1] tilted: with one end raised slightly from the horizontal.

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FRENCH, ENGLISH, RUSSIAN, SPANISH LSP—COURSES

The Implementation of Foreign Languages as Optional Subject Matters in an Engineering Curriculum at the Eindhoven University of Technology in The Netherlands.

J.M. Ulijn
Eindhoven University of Technology

Sometime ago new optional subject matters were introduced in the curricula of different fields of engineering at the Eindhoven University of Technology: French, English, Russian and Spanish, beginning on an intermediate level of proficiency in the French and English language, and the zero-level in Russian and Spanish. Their educational objectives were defined by means of two enquiries held among scientific staff members and students of the university concerned (Ulijn, 1972) and among industrial firms in Holland (de Jager, Reunis, 1971). The last investigation comprised also an analysis of 10,000 vacancy advertisements for academic and non-academic engineers. For French at first a technical language course was composed by a linguist and an engineer and evaluated over two years (Ledieu, 1971). Its content elements and didactic procedures were selected on the basis of the work of the CREDOF LSP-section in Paris and of the results of an inquiry held among LSP-teachers at Dutch colleges of Technology (Ulijn, 1971).

The evaluation of this first course suggested a content selection on a more general scientific, social, political and economic level (Sampic, 1974). The new course materials included elements of "Vous avez la parole" (Kowalewska a.o., 1970). Discussions were planned on Dutch-French contrastive civilization topics. More attention was paid to grammatical explanation. Students were better motivated and seemed to reach their own objectives. This four-year didactic experience, which led to a more precise description of initial level, final level and course content, was submitted to discussion on the AILA LSP Round Table. A development of specific additional syllabuses for French, English, Russian and Spanish is in progress.

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FROM THE EDITOR:

Much of this issue is given over to excerpts from materials newly available from the Clearinghouse. Please note that it has not been possible to excerpt from all the materials in the bibliography. Some of these will be abstracted in later issues; others will appear in greater detail.

POSITION AVAILABLE:
CHIEF-OF-PARTY (COP), CANTON, PRC

The UCLA Program in ESL is recruiting a senior scholar to serve as the Chief-of- Party (COP) of a project in Canton, People's Republic of China. The COP will direct a team of eight teacher/researchers in teaching English to Chinese scientists who plan to pursue studies in science and technology in English speaking countries.

The appointment will become effective July 1, 1980, with an expected duration of two to five years.

Applicants for the COP position should: (1) hold a PhD degree in ESL/EFL, applied linguistics or linguistics; (2) have had previous experience as an administrator of overseas programs; (3) have experience directing graduate-level research projects; and (4) be thoroughly familiar with ESP literature and have a personal academic interest in research in this area. Exceptions to some of these qualifications may be made in cases of special previous experience.

Applicants should know that there is a serious housing shortage in Canton. It is unclear at this time whether housing and schooling needs of dependents can be accommodated.

Salary: equivalent to $22,000 per year (approximately 1/8 paid in Chinese currency).

Housing will be provided while in Canon. International and local travel in China will also be provided.

Those interested should send curriculum vitae and inquiries to:

Russell N. Campbell
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PRACTICAL PAPERS IN ENGLISH LANGUAGE EDUCATION,VOL.II

A Review by
Marjorie K. Morray & Kathryn Michaels
Oregon State University

The goal of Practical Papers in English Language Education, two volumes of which have appeared to date, is to make available the results of research in English language education at the University of Lancaster, England. The objectives of this research are: 1) to inform readers on new developments in English Language Education in the U.K. and abroad and 2) to discover and develop areas of common practice and concern between EFL/ESL and the teaching of English to native speakers.

The content of Volume II bears out the title of the series: the four essays therein contain practical information and guidelines dealing with curriculum development and course design. An interesting aspect of these papers is the manner in which they interface course aims set by the instructor with an inquiry into the learning process experienced by the student. In fact, the topics they deal with are discussed with relation to the process of language acquisition taking place in the students as individuals. Thus, the authors reject basing course content entirely on pre-determined goals or objectives.

"Engineering Lecture Discourse and Listening Comprehension" by Dermot Murphy and Christopher Candlin takes up the useful question of what constitutes valid materials for the development of listening comprehension exercises. For this purpose the authors have analyzed the discourse of a set of engineering lectures in order to arrive at a descriptive model of this means of communicating scientific and technological information. At the same time, their analysis reveals discourse features presenting particular problems to students attempting to understand such lectures.

Murphy and Candlin conclude that exercises designed to develop aural comprehension of scientific and technological lectures must include all elements found in this type of presentation — commonly employed discourse features, graphic illustrations and paralinguistic information (gestures, chalkboard behavior, eye contact, etc.) These elements cannot be separated. On the basis of authentic materials

CON'T ON PAGE 3

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Review Con't.

in which they are combined, however, listening and note-taking skills can be developed. Videotaped lectures or slide-tape presentations where the tape is the recording of a real lecture provide an adequate situation for practice in note-taking if the content of the taped material is sound and the skills acquired transferable to the students' vocational/professional classrooms.

"Study Skills in English: New Directions" by Pauline Rea takes up the question of what makes a syllubus learner-centered. After a historical examination of past attempts to develop learner-centered study skills courses in the United Kingdom, Rea discusses a study skills course she developed to meet this same objective. Rea considers several variables which effect curriculum design, concluding that the "learner is the principle variable in course design". The key to creating learner-centered materials then, is a student centered approach which focuses on the process of learning instead of the product of learning. Such an approach matches the learner's linguistic and communicative needs with the language learning environment so as to create a student sensitive syllabus in which the student actively takes responsibility for his own learning.

Paper 3 by Hutchinson, Waters and Breen is entitled "An English Language Curriculum for Technical Students." It emphasizes a comment frequently heard these days: "We're too concerned with what we need to teach students and too little concerned with what they bring to the learning process in terms of competence, motivation, expectations." Hutchinson et al place less stress on language as an end than on the use of language as a means toward sharing and solving problems appearing in the technical material under discussion. In their curriculum great use is made of individual and small group reaction to information presented through a variety of media (print, film graphics, etc.). All skills — oral/aural, reading, writing — are employed. At the same time, the students are stimulated to analyze the learning process they are experiencing and what it demands of them.

Evaluation — on-going assessment of the curriculum and of learner progress — is an important component of Hutchinson, Waters and Breens' program.

The idea of emphasizing the use of language for purposes of communication rather than teaching about language is not new, but the authors introduce a stimulating and provocative element in their provision for student contributions to the process of constructing a bridge between learners' initial and target competence.

The fourth paper, "Evaluating and Designing Language Teaching Materials," by Candlin and Breen, continues this emphasis on language and learning as a communicative process.

This view is the central feature in the four major areas of material evaluation and design criteria, i.e. materials appropriateness, materials content, language learning activities and new directions in materials design, which the authors examine. Each major area presents a detailed series of questions and make explicit so many facets of design and evaluation that the individual teacher should give serious thought to using them in a check-off format.

Candlin and Breen set forth two key guidelines. The first, built upon this view of language as a dynamic, open-ended process in which negotiation, expression and interpretation occur continually, centers around materials. Materials, an outcome of the teaching/learning process instead of input used to begin the process, are a link between learner and target competencies and function as a resource to stimulate further learner involvement and exploitation of other materials and real-world data. Materials, consequently must not only accomodate both the learner's initial, medial and final knowledge and abilities with language systems as well as the learner's expectations of and past experience with language learning and teaching, but they must also allow for differentiation during the learning process within and between learners.

A second major guideline concerns content. Content represents a cyclic process of learning by adding to and refining initial abilities, knowledge and skills; it is the servant of the teaching/learning process; it should consider affective and cognitive items important to the learner.

This article presents a challenge to material developers and to teachers as it builds an integrated whole of materials, methodology, content and activities around a language philosophy which draws upon the latest research to designate the learner as the central part of the learning process.

- ABSTRACTS -

ON THE USE OF INFORMANTS IN DISCOURSE ANALYSIS AND 'LANGUAGE FOR SPECIALIZED PURPOSES'

Larry Selinker,
University of Michigan

1. Introduction

1.1. General Background

Our initial premise is as follows: for the profession of second-language teaching to become relevant to the needs of consumers, it will have to move in new directions. One of these has been termed the teaching of 'Language for Specialized (or Special) Purposes' (LSP), and a well-defined sub-branch is widely, though not universally, called the teaching of 'English for Science and Technology' (EST). In the context of this paper, I will regard 'English for Academic Purposes' (EAP) as a relevant sub-area of EST.

As language teaching necessarily moves in new and unfamiliar directions - while attempting to solve practical language problems - one finds little in currently available teaching materials, in currently available methodologies, and in familiar academic disciplines which is of immediate help. Teachers seem to be put into one teaching situation after another which is clearly untenable, such as having to teach students to read subject-matter material which we ourselves have trouble in understanding.

To state that 'research' is needed is to state the obvious; but, exactly what types of research do we need? And, just exactly what is researchable, given the current state of the art?

The EST/EAP teaching situation we shall be concerned with here relates to large numbers of English as a Second Language (ESL) learners the world over - the need to read large amounts of academic material in English. (What Levenston (personal communication)

CON'T ON PAGE 5

** Starting in January, 1980 "VESL Exchange" will become a quarterly column in the English for Specific Purposes Newsletter.

VESL EXCHANGE

COLUMN EDITOR: Nick Kremer,
Valley Vocational College

The idea of targeting ESL instruction to more precisely meet employment related language needs is rapidly gaining currency. It is known as VESL (Vocational ESL), MESL (Manpower ESL) or EOP (English for Occupational Purposes).

An excellent, up to date overview is Adult Vocational ESL by Jo Ann Crandall of the National Indochinese Clearinghouse/Technical Assistance Center, a service of the Center for Applied Linguistics. Her monograph covers the need for VESL, the language needs of the vocational student, VESL program design, adapting and creating materials, and research needs in VESL. There are two sample lessons and an extensive bibliography. The language needs section outlines the kinds of language--grammatically and functionally--that students need to learn. The monograph offers a variety of program models to meet the needs of LES adults, listing their advantages and disadvantages. The materials section discusses approaches to needs assessment, ways in which materials currently used can be adapted, and syllabus design.

There are two booklets of interest to program designers. Vocational Education for the Limited English Speaking: A Handbook for Administrators, compiled by Jeanne Lopez-Valadez of the Bilingual Vocational Education Project in Illinois, has sections devoted to legislation and funding, identification and assessment of potential students, programmatic approaches, and an implementation check list. Some of the information is localized to Illinois; the bulk is of interest to everyone.

Vocational ESL Master Plan for the San Francisco Community College District is an additional resource. The plan is divided into getting a job, holding a job, and moving ahead. Each segment is broken down into general objectives, language objectives, and contextual areas. The contextual objectives areparticularly useful in identifying skills LES adultswill need.

The most critical problem in VESL is the scarcity of appropriate classroom materials. There are a few general VESL materials on job application, job interview and so on but almost nothing exists in the area of occupational specific VESL for entry level occupations such as automechanics and welding.

Two bibliographies help identify existing materials. Lopez-Valadez has compiled a Bibliography of Bilingual Materials for Career/Vocational Education. It has a strong VESL section and an extensive listing of bilingual sources. A second source is the Project Developed Bibliography of Vocational Education Curriculum Materials Appropriate for Utilization with Limited English Speaking Students compiled by Susan Adams of Western Kentucky University.

Sets of ESP materials developed by publishers such as Regents, Oxford University Press, and Collier-Macmillan serve as poor models for VESL materials because they stress reading and writing and there are currently no materials available addressed to entry level occupations stressing the listening and speaking tasks necessary in each of these fields.

Some important new materials are scheduled for publication this year. Longman's will issue It's Up to You: Language Skills and Strategies for Getting a Job by Joanne Dressner et al. The beginning level general VESL materials written at the San Francisco based Chinatown Resources Development Center hopefully will be available by the end of the year. Modulearn, Inc. will publish a series of occupational specific units developed by the Center for Applied Linguistics. The titles include food services, automechanics, and clerical subjects.

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Issue No. 7 of "EST/ESP CHILE" Newsletter is recently out. It completes the newsletter's 4th year of publication and contains a Cumulative Index (1976-1979) displaying the wide scope of a significant body of ESP investigation.

* * *

ABSTRACTS CON'T

calls "advanced reading in a second language when the reading is for professional needs".) The problem is complicated by several factors: what are we to do as ESL teachers in the normal situation where we ourselves just do not understand the English language scientific textbooks and professional articles which our students are required to grapple with? Complicating the problem for us as teachers and researchers is the factor of heterogeneous language classes, not only in the usual sense of "levels" and native languages, but in the EST/EAP sense of a multitude of academic disciplines. Further complicating the problem is the possibility that a particular language or teaching principle we might find operating in one EST/ESP discipline will not necessarily be transferable to other academic disciplines. We just do not have the empirical bases for knowing.

NON-FINITE VERB FORMS IN TECHNICAL ENGLISH LITERATURE

by Francoise Salager,
University of the Andes

In a companion article (Salager, 1979) the finite verbal forms of Technical literature have been defined. The purpose of the present paper is to determine the non-finite verbal forms of English Technical prose (TE); it is divided into two parts: the first one (Part A) corresponds to the use of gerunds in TE and the second (Part B) to the use of infinitives. Corpus selection and methodology are reported elsewhere (Salager, 1977, Chapter 7).

Emotive Features in Technical & Scientific English

by Dr. Rosemarie Glaser,
University of Leipzig

0. In recent research in the field of text theory and stylistics, attention has been focused on the linguistic structure of scientific and technical texts. As such texts are expected to provide the specialist with up-to-date and relevant information, they must meet certain communicative requirements which are reflected in specific features of style. As scientific and technical texts are subject to stylistic and rhetorical rules, whether it be a monograph, an article in a learned journal, a lecture or public address, a book review or operating instruction for a machine or laboratory equipment. The most important features of texts of this kind are objective information, the statement of facts, brevity and authority. Therefore a wordy, imprecise and flowery style would be inadequate and would violate sytlistic norms.

1. Since scientific publications are mostly objective factual reports, linguists commonly hold the opinion that this sort of writing is entirely rational and without emotional features. Jackson E. Morris calls for the "cultivation of a simple, correct, and vigorous scientific and technical writing style"[1], and Rufus P. Turner states categorically: "Good technical writing is unemotional and unadorned"[2]. On the whole, this view is also shared by a number of Soviet linguists, among them I.A. Volnina and V.M. Avrasin[3]. Emphasis is put on such stylistic features as "jasnost', točnost'" and "obektivnost' izloženija" (i.e. clarity, preciseness and objectivity of presentation) of scientific and technical texts. The Soviet authors maintain that emotive features and colloquial elements would be incompatible with the objective character of technical writing and distract from its basic content. A somewhat different opinion is held by the Soviet linguist M.N. Fožina[4]. She tries to prove that although scientific discourse tends to make abstractions and generalizations it is not necessarily free from emotive features which express the author's personal ideas and assessment of the subject.

LINGUISTIC ANALYSIS OF A TECHNICAL MANUAL

by Thomas N. Tinkham

Within the U.S. and in many parts of the world there is a growing awareness that although a knowledge of English is necessary for training and work in certain professions, it is often only parts of English rather than the English language as a whole that must be learned. Unfortunately, few teachers of ESP have had formal training in ESP and thus are a bit disoriented when they find themselves teaching in a situation that calls for a new and limited approach. This paper describes the experience of one such teacher in order to make the point that in an ESP situation the eventual language needs of the student should be carefully analyzed prior to production of curriculum and to instruction. The paper goes on to suggest means by which reading tasks in an ESP situation can be analyzed and gives the results of one such analysis by the author. This is being done to provide guidelines for English teachers who, like myself, have a background in general ESL but find themselves having to adapt to an ESP situation.

THE MODALS IN FORMAL SCIENTIFIC DISCOURSE: FUNCTION, MEANING AND USE

J.R. Ewer
Department of English
University of Chile at Santiago

I. INTRODUCTION

Work recently carried out at this Department into factors which facilitate comprehension and prediction in the professional article and academic lecture on science and technology (Ewer, 1978) has brought into prominence the complex and important role played by the modal auxiliaries*. Modals are in fact the main linguistic elements in a number of communicative operations such as inference, prediction, the statement of conditions and the indication of various kinds and degrees of possibility, which are fundamental to and extensively developed in scientific explanation and discussion.

Although the functions of the modals in the language as a whole have been the subject of extensive interpretation (recently, for example, by Joos, 1964; Palmer, 1965; Leech, 1971; Jarvis, 1972; Quirk, et. al. 1972, Close, 1975; Leech and Svartvik, 1975 and Lyons, 1977), and specifically in written scientific English by Huddleston et. al. 1969 and Huddleston, 1971; none of these have provided satisfactory explanations of the part played by the modals in the types of discourse under consideration**.

* * *

THE LANGUAGE OF TECHNICAL ENGLISH LITERATURE: PATTERN CLASSIFICATION AND SEMANTIC FEATURES

by Francoise Salager,
University of the Andes

The purpose of this article is to define quantitatively through a statistical analysis[1] the basic, fundamental and specialized vocabulary of English Technical literature (the written language used in Engineering - TE) as well as its semantic characteristics[2]. To this end, a linguistic corpus of 100,000 words of natural language text has been chosen.

This corpus comprises fifty sample texts of approximately two thousand words each. To ensure representativeness, the fifty samples were distributed among seven categories representing the full range of subject-matter (cf. Table 1); in scope, they represent the kind of literature likely to be consulted by students or/and researchers in the field of Engineering.

RELATING TO THE COMMUNICATION CONCERNS OF FOREIGN MEDICAL COLLEAGUES

Margaret M. van Naerssen
University of Southern California, L.A.

When considering the situation of the foreign medical graduate (FMG), one should try to separate the facts concerning the technical medical competence* of the foreign colleague from those concerning his/her communicative competence. This presentation addresses the latter, communicative competence; describes some of the research, programs and other resources available to assist foreign colleagues with their linguistic/cultural concerns; and suggests ways in which the professions of medicine and applied linguistics can share resources in this area.

THE CHECK PROCEDURE IN A TECHNICAL ENGLISH TRAINING COURSE*

Edward I. Burkart
American University

Performing detailed check procedures is an important part of the daily routine of operators of sophisticated mechanical and electronic equipment. Check procedures contain technical vocabulary, specialized structures and basic technological concepts, all of which are unfamiliar to many foreign operator trainees. This article proposes the inclusion of check procedures in a technical English course designed to be taken by such trainees after completing their general English training but before going into substantive operator training. The nature of the check procedure is discussed, and its role in a technical English course is examined. Certain problems involved in teaching a check procedure are considered, including teacher orientation, the abstractness of check procedures and the need for special instructional routines. Solutions are proposed for these problems, and detailed routines are given for introducing and reviewing a check procedure in the English classroom.

THE RHETORIC OF RANGE MANAGEMENT LECTURES

Linda C. Watanabe
Utah State University

The purpose of the present study is to examine the linguistic needs of English as a Second Language (ESL) students preparing to go into the field of range management at Utah State University.

Lectures from range management courses were recorded and the second 15 minutes of each lecture were transcribed. A rhetorical lecture system specific to range management was developed. Lectures were examined as a series of discourse units or topics each of which are introduced, developed, and concluded. This system was employed to find out what rhetorical processes and structural forms were typically found to introduce, develop, and conclude topics in the lectures. Based on the findings, it appears that there is a typical range management lecture with consistent rhetorical processes and structural forms. The importance of these findings is briefly discussed in terms of learners' needs and materials preparation for a listening comprehension course for range management students.

ENGLISH TERMINOLOGY IN SHIPBUILDING AND ITS INFLUENCE UPON THE CORRESPONDING ROMANIAN VOCABULARY.

Nicolae Bejan
University of Galati

1.o. INTRODUCTION

From the near-esoteric utterances of linguistic theory to the most practical advice for classroom teachers, the range of subject-matter that falls within the general category of "language" is wide indeed. The overwhelming bulk of human knowledge-scientific knowledge included - is stored and transmitted in language.

Within the general framework of functional styles, shipbuilding occupies a special position. However, we have to admit, scientific and technical discourse has not yet been thoroughly investigated, especially when we refer to the very specific terms in naval architecture[1]. Though I have spared no efforts to learn about relevant approaches in this field, I have found none so far. This is one of the reasons why I decided to make the present outline in the sphere of English terminology in shipbuilding and its influence upon the corresponding Romanian vocabulary.

The long-awaited ENGLISH FOR ACADEMIC AND TECHNICAL PURPOSES: STUDIES IN HONOR OF LOUIS TRIMBLE is now in preparation with Newbury House. Edited by Larry Selinker, Elaine Tarone and Victor Hanzeli, the volume has been more than two years in the making and promises to be one of the ESP highlights of the coming year. The book contains papers by a number of authors on theory, description, and practical applications, and a bibliography of Louis Trimble's extensive works.

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*To appear in English Teaching Forum (Washington: USICA, 1980).

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David Austin and Tim Crosfield

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Kenneth and Chuntana Methold

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THE HISTORY OF ENGLISH FOR SPECIAL PURPOSES (ESP) PROGRAMS AT OREGON STATE UNIVERSITY

William Longenecker

The English Language Institute (ELI) at Oregon State University has, since it began in 1966, offered a complete intensive English program devoted to preparing non-native English speakers with the language proficiency, study skills and cultural awareness to successfully enter on an academic program at an American institution of higher education.

The program of the ELI offers classes arranged in six proficiency levels in the areas of English grammar, vocabulary and reading including Reading Laboratory, and writing. Depending on need, a student may be enrolled in a handwriting or social survival class. Advanced students must choose, with help from their advisers, from classes such as: typing, lecture comprehension, Study Skills I or II, English for Science, English for Chemistry, and English for Business. All students have the personal responsibility of using the ELI Language Laboratory, Reading Laboratory, and Self-study Center. Additionally, all students are assigned 2-6 conversant hours per week. These are one-to-one unstructured conversation hours with native speaker students and community volunteers.

In brief summary, the ELI/OSU provides a comprehensive, full-service intensive English program (IEP) with a decidedly academic focus. So why did any "special programs" ever occur?

Even before the ELI was created, and since, there have been a variety of requests from within and without the Univeristy for ESL programming that just did not "fit" into the ELI program. Sometimes the constraint was time-related, but often the desired program goals did not fit with ELI goals.

For example, the ELI prepared an annual summer program to support an OSU Radiation Center training agreement. (See Michaels below). These groups of trainees arrived each summer after the regular ELI program had begun, expecting to study through to the week before Fall term classes began, a period extending five weeks after the regular ELI Summer term ended. This was the only time in their program for English. They had to move on to a year-long training program in the Radiation Center preparatory to on-site training in another state. Language deficiencies on the part of a student usually led to being dropped from the program, not to remediation, because of the severe time constraints.

Additionally, it was made clear to the ELI that these students did not "need", and no one connected with the program desired, exposure to several language areas taught to regular ELI students, i.e., reading of material other than academic texts and technical manuals, prose composition, general library skills, or even acculturation activities.

The result was necessarily an English for Special Purposes program, that is, a program which departed from the traditional IEP goals and materials in favor of goals and materials dictated by the perceived needs and interest of the participants and their program director.

Over a period of years, we conducted several other special programs in addition to the series just mentioned. We noticed that participants and academics who dealt with the students after their English training all felt that they had received needed English training even though the participant scores on standardized English proficiency tests were not necessarily high.

So, years before ESP became a household word in American ESL programs, we observed that there was considerable place for non-traditional ESL programming with curriculum dictated by a "needs analysis" of a particular group of students with a common goal. We went on to study whether this might not be a situation that existed elsewhere in the world. We were chagrined to learn of the depth of experience and materials for ESP that had existed for many years outside the U.S.A. In fact, we learned from a Canadian of Dr. Louis Trimble's ESP work at the University of Washington, just a few hour's drive north of Corvallis.

The ELI, then, with the support of key university administrators and faculty, began efforts to develop regular procedures for handling very irregular programs. Our first effort was data gathering and sharing on an international basis with an additional goal of creating a national awareness of ESP material and program possibilities.

With university support, the ELI pursued and received a grant from the AID/NAFSA Liaison Committee. The grant allowed us to set up a clearinghouse and newsletter devoted at first to teaching English for science, but last year the scope was broadened, by reader demand, to English for specific purposes.

The ELI next added another administrative position, Coordinator for Special Programs. This new position gave us the extra administrative capability to begin to pull together our experiences and data on ESP teaching programs. With this capability, we developed the systems to deal with any sort of request for a special or regular program and we began accepting some group programs we could not have accepted earlier in our existence.

All of our special programs have required more effort to accomplish than our on-going program. The problems have not been insurmountable, however, and we continue to refine our ability to serve groups of students whose needs, interests or time frame do not allow participation in our regular IEP.

ORIGINS OF THE 1978 & 1979 EST SUMMER INSTITUTES

by Karl Drobnic

In recalling the events that led to the formulation of the 1978 and 1979 EST Summer Institutes, two lines from T.S. Eliot seemed to sum up the timbre of the times:

> "Oh, do not ask, 'What is it?'
> Let us go and make our visit."

The question of what EST is was being asked increasingly around the world, and a vehicle for drawing together a community of scholars and interested practitioners in one place for an extended period of time was clearly indicated.

At Oregon State, painful experiences with EST in two projects had made us very aware of a need for advanced teacher training. ESP successes in various of our programs paled beside problems encountered in the Libyan Engineering Project (LEP) in 1975 and the Saudi Science Education (SSE) project in 1978.

The principal problems in LEP were very similar to those frequently found in overseas L2 programs. The 24 LEP students arrived as "false beginners", their English proficiency quite low, but required under terms of the contract with Libya to undertake freshman science classes for credit concurrent with language study. Great pressure for English classes directly relevant to their math and chemistry studies ensued; the staff, however, had only vague notions of how to accomplish this. That most of these students succeeded in their subject matter courses is a credit more to their perseverance than to the stopgap ESP measures devised by their teachers.

The LEP program, however, led to the establishment of the EST Clearinghouse. Following phase-out of L2 training for the LEP students, we spent much of 1976 seeking literature and expertise on ESP. We sponsored appearances by both Henry Widdowson and Louis Trimble, presentations that impressed upon us how much we did not know about ESP. We also discovered that little on the subject was available in the professional literature. From this latter fact the Clearinghouse was born. With Widdowson and Trimble as godfathers, and the strong support of Marjorie K. Morray, Betty Wallace Robinett, and Leslie Palmer of the NAFSA ATESL Team, the Clearinghouse was funded in time to announce operations at the 1977 TESOL Miami and NAFSA New Orleans Conferences.

The early efforts of the Clearinghouse focused on collecting and distributing information on EST, and on identifying people and programs involved in teaching EST classes. What we had suspected quickly became evident; numerous people were struggling with similar problems in isolation. It also was already apparent that there was considerably more to EST than changing "This is a book" to "This is a computer".

During this time OSU conducted a short-term program for a small group of Taiwanese engineers, mature professionals who arrived with a high level of English, and pedagogical successes in the EST portions of this program did little to prepare us for the events that would prove the genesis of the two EST Institutes.

In January, 1978, we began preparations for the Saudi Science Education program, and looking back, we cannot but now agree with Ron Mackay's statement in Issue 20: "Many otherwise adequately planned ESP/EST programs founder because of inadequate teacher training." Such training, however, was not readily available, and with mounting problems in the SSE program, the Clearinghouse began investigating the need for and the possibilities of arranging such training on a national/international level.

Advised by Louis Trimble, who had had experience running two EST Summer Institutes at the University of Washington, we narrowed the problems for mounting the Institutes to two: financial backing, and recruitment of a faculty that could guide participants towards solutions to the problems of teaching EST.

At the outset of the TESOL Mexico Conference (1978), John Lackstrom agreed to conduct the first Institute, and we then set about arranging the 1978 session. Still in Mexico, Steve Hanchey committed The Experiment in International Living to the project as co-sponsor and we laid plans for a two-year cycle of Institutes.

The first was to be small and limited to institutionally-sponsored participants, while the second, building on the systems established in 1978, would have a considerably larger faculty and be open to any applicants with a command of English.

Our hope was that sponsoring two successful Institutes would break the ground needed in the U.S. to place ESP in curricula of graduate TESL programs and lessen the need for the Clearinghouse to undertake such projects.

Initial reaction at TESOL Mexico ran to extremes. Longman House editor Paula Kahn offered generous encouragement at the same time Oxford University Press wrote off the idea as preposterous. The first to legitimize the 1978 Institute by agreeing to sponsor a participant was Ann Johns, then in the early stages of building the ESP program at San Diego State. However, it was Lin Lougheed, then in charge of recruitment and training for Education Development Center programs in Algeria (see Issue 24), who guaranteed that there would be a 1978 Institute by reserving six places for the INELEC teaching staff.

The rest is fairly well known. The remaining places filled, the Institute gathered momentum, and from it appeared papers, conference presentations, and publications around the world. The enthusiasm generated there propelled the 1979 Institute into being (see Issue 31), four weeks of ESP that went far beyond the original objective of providing teacher training.

Plans for the 1980 ESP Institute are now well-advanced, and the Clearinghouse is embarked on another new frontier—breaking away from its home base at Oregon State to stage programs at other locations. With seven of the OSU staff now alumni of the two Institutes, we have had immense benefit from hosting them. We have thoroughly enjoyed the professional contacts these Institutes have brought to our campus, and the opportunity to provide the framework for a real and substantial contribution to our discipline has been a personal pleasure. As the Clearinghouse now explores staging similar programs at other sites, we hope that host institutions will find them equally beneficial.

◆

ENGLISH FOR BUSINESS & ECONOMICS: A NEW ELECTIVE AT OSU

Marianne McDougal
Barbara Tolley Dowling
Oregon State University

English for Business and Economics (EBE) has been gaining increasing importance in the field of ESL as evidenced by the growing number of special programs requesting business English and the large number of foreign students who are majoring in one of the business fields. In 1979 English for Business and Economics was added to the electives offered by the English Language Institute (ELI) at OSU. (Other electives include English for Chemistry, English for Science and Technology, Handwriting, Scientific Topics for Listening Comprehension, Survival English, and Typing.)

In order to determine if there was enough interest to offer an EBE elective, two surveys were taken. The first questioned ELI students about their future academic or professional plans and asked if they would be interested in taking a class dealing with English as it relates to the fields of business and economics. Next, the staff members were surveyed and their opinions solicited about offering EBE as an elective on a three-term, trial basis. The students' responses were favorable and the staff's, supportive. Finally, a proposal incorporating the results of the two surveys was written and submitted to the administration requesting that EBE be offered as an elective on a trial basis for three terms. The class has been scheduled for Fall term, 1979 and Winter and Spring terms, 1980.

The EBE elective is currently available to all ELI students in the two highest levels in the five-level program. The English proficiency of this group ranges from high intermediate to advanced. The class meets for fifty minutes three days a week for a period of ten weeks. Although the class is particularly suited for those with an academic and/or professional need for business English, there has been considerable interest shown by students who are not business oriented but find the subject matter interesting and the additional exposure to English helpful.

The business and economics concepts presented in the class are introductory and basic, similar to those found in lower-division university courses. In addition to an introductory unit that discusses the contemporary meaning of "business" and the careers that business encompasses, the following subject matter areas can be covered: accounting, business correspondence (letters and memoranda), computers, decision making, finance, international trade, management, marketing, and organization. Approximately four to five topics can be covered in one term. In order to present the subject areas that will be of greatest interest and use to the students, a survey is taken at the beginning of the term. The nine business topics are listed, and each student is asked to choose the ones he or she would particularly like to study. The instructor then tallies the results and organizes the course around the four or five most requested topics.

Most of the material used for the class has been generated at the English Language Institute. Patrick Carmichael from San Diego State University, acting as a consultant, developed the management and organization units, and ELI staff members have developed subsequent units. Each unit is based on one of the topics or subject matter areas just mentioned. A reading in that business area forms the core of the unit. For example, in the subject area of international trade, the reading "Why Nations Trade" forms the core. Exercises focusing on vocabulary (general and business), listening comprehension, oral communication, discourse features, and writing are then built around the reading. Business vocabulary and oral communication receive special emphasis. For example, vocabulary study in the subject area of international trade includes among others commodity, import, export, quota, duty and levy, and oral communication takes the form of discussion questions such as "What are the advantages and disadvantages of international trade?"; "What commodities does your country import and export?"

In addition to this core material, outside resources are utilized to stimulate real life business situations whenever possible and appropriate. A tour of the OSU computer center, a guest speaker discussing "Balance of Payments," a simulation game where students act as buyers and sellers in the world market, a movie dealing with financial management, and a filmstrip about international trade have provided additional dimensions to the regular classroom activities. University departments, the Home Economics Division of Extension Service, and local business firms have been valuable resources.

At the time this article is being written, the second term of the EBE elective has just gotten under way. Student response and evaluation to date has been favorable, and the enrollment high (Fall term 18, Winter term 19). The EBE elective adds to the ELI program a subject-based, high interest course that directly addresses student language and academic needs.

TAIPOWER: A FORERUNNER IN ESP

by Kathryn Michaels

The Taiwan Nuclear Engineering Program began in 1968 as a cooperative venture between the English Language Institute and the Department of Nuclear Engineering, headed by Dr. Chih Wang. The aim of the program was to provide theoretical background and practical experience in the operations of nuclear power stations to students from Taiwan Electric Power Company. The program was terminated in 1978, at which time the Taiwanese had built up an adequate core of power station managers able to instruct incoming employees in the complexities of running and maintaining nuclear power stations in Taiwan. During the ten years in which the program existed, the English Language Institute provided language instruction to some 150 electric power plant technicians and managers.

Students were offered instruction in the language, academic and vocational areas, though in distinctly separate units. During the initial ten weeks, students followed a rigorous program of instruction in intensive English and in the nuclear engineering field. The academic courses, basics in the nuclear field, were adapted for the students from the regular curriculum offerings of the Nuclear Engineering department, and were taught to them as a homogenous group. Later periods of instruction included little or no English instruction, but alternated academic subject instruction with on-site field training at any of a number of power plants in the United States.

The program, one of the first such programs in which OSU was involved, was of major importance because it utilized many of the concepts which are now recognized as central to ESP. It gave OSU the opportunity to develop materials, methods and administrative procedures for ESP.

First, the program required materials development. Dr. Marjorie Morray and Sarah Klinghammer created the SINES video tapes to provide the students with needed practice in pronunciation problems unique to their group.

Second, the program gave the opportunity for cooperation between the ELI and an academic department. While the instructional units were totally separate, instructors worked to insure the language instruction considered language which the students would encounter in nuclear studies. Later years of this program also included actual examination of materials from nuclear engineering, with limited attempts to instruct to the language from them. The interface between language and subject matter which tentatively began here has been most fully developed of late in the sandwich concept used in the SAA program. (See Polensek below.)

Third, we developed pre-program administrative procedures fostering cooperation/interchange between the sponsoring and host agency and refined screening criteria in order to know as precisely as possible, before the program's inception, both students terminal language needs and initial language aptitude, and psychological and cultural attitutes. Such knowledge decreased student dysfunction within the program and increased student approximation to terminal language needs with a concomitant increase in the number of successful language learners. Indeed, with passing years, Taiwan Electric Power group gathered such knowledge with such precision that students who met entrance criteria had an extremely high probability of also meeting terminal language performance goals.

INTEGRATION OF ESP INTO CORE CURRICULA

by Lita Verts

Programs of English for Special Purposes have proven their value time and again as separate programs. Intensive English Programs founded in basic or general or traditional English (whichever term best applies) have a longer history, but no greater proven value. The temptation is to separate each kind of program into its own territory and never let one invade the domain of the other. The battle lines are drawn, and the perimenters of each hotly defended by their advocates. This is an impractical waste of student time, teacher effort, and materials, and it is impossible to maintain perfect separation anyway.

The need for special categories of language can and should be identified early in the L2 career of most students. In this era of high speed technology and high pressure competition among nations and the citizens of those nations, it is a rare second language learner who begins to learn another language without a specific goal. Progress toward that specific goal can begin earlier and transition into an ESP program can be made more smoothly if the student is prepared with fundamental structures and vocabulary appropriate to his target goal as a part of his initial L2 experience.

At the ELI/OSU the Level III structure class (a low-intermediate proficiency level) has been effectively used in this manner. Since all undergraduate students in American university are required to take a series of basic science courses, and since most foreign students who are headed for graduate school are doing so in one science or another, it was determined that a large percentage of our students need to be familiar with the conventions of scientific language. Therefore, basic structures appropriate to scientific usage are introduced at this level of the IEP.

The conventions of tense are an example. At this proficiency level simple present tense should be a review, and students frequently object to review with statements such as "We've already studied this. Teach us something new." It is a relatively simple process to convert this review into a discussion of Description using the verb be + adjective, verb have + noun, and action verbs as the presented structures. Geometric figures work well as examples.

"A triangle has 3 angles."

This lesson leads naturally into Classification, using verb be + noun.

"This figure has 3 angles. Therefore, it is a triangle."

Different sizes and types of balls also work well as visual and tactile items in these lessons (basketball, volleyball, softball, tennis ball, golf ball, etc.) Students can be asked to describe one ball, tell how it is different from all the others, and then name it. I have used this presentation in a class which included a blind student who described the balls from touch, and his insights made the lesson particularly interesting for the whole class.

Students who are tempted to rebel at review of basic structures accept this approach willingly and feel that they have learned new material.

A review of general structure texts reveals that Passive Voice is most commonly given short shrift, frequently ordered at the end of the material, and given minimal explanation or exercises. A review of general scientific literature, however, reveals a high percentage of discourse in the areas of experiment description and process description to be written in Passive Voice. By bringing this form forward in time and including it with the presentation of each tense, we introduce the students to a valuable structure, and we reinforce it with repetition. We also reinforce the idea that participles are necessary and must be learned well, an idea many students seem to arrive at late.

One way I have found to present Passive Voice graphically is to perform a simple experiment such as is used with elementary school students in class and have the students write a description of it using only the passive forms. This emphasises the "use for science" convention as well as teaching the structure.

The above are only examples of the ways English for Science may be integrated to a general structure course. The point is that they should be in an IEP aimed at academically oriented students. In programs for other populations (vocational, business, survival, etc.) other needs would take precedence over science, but these needs must be identified and addressed.

We are teaching a general structure course, but we are recognizing the real world that the students will be plunged into after they leave our IEP cocoon. Such recognition can only make the students feel more positive about their progress toward their ultimate goals, and this positiveness can only bolster their drive to succeed. In many ways, it is easier to include the ESP elements into the general course than it is to try to fight them off.

< SANDWICHES >

by Helen Polensek

For ESL students with a 500+ TOEFL, university classes are difficult enough to cause them to look back to their ESL teachers for help; for students with less than 500 TOEFL's they are exercises in frustration; but students in graduate level courses with -400 TOEFL scores might as well be on Mars.

At Oregon State University, some Saudi students in a special program leading to a master's degree found themselves by terms of their contract in the third predicament. The students had been studying English for about a year, having arrived with almost no English at all. The English Language Institute attempted to provide a transition to full university life by serving up a "sandwich" class. Such a class sandwiches the meaty subject-matter class between English pre- and post-sessions. The English teacher attends the subject-matter class, and, in cooperation with the subject-matter professor, helps the students meet the course requirements. Since the English component has to reflect the demands of the subject-matter class, the ESL teacher has to use a multi-skill approach and be flexible. I taught such a class which basically was a study skills class with heavy reading and vocabulary work.

The class I sandwiched was a Science Education class on the Mathematics Curriculum in the Secondary School (American, of course). Six Saudi students were auditing the class, constituting half of the seminar. It was a low key class involving informed discussion of readings and issues, but presupposing an intimate knowledge of the American educational system. Students generally were expected to follow the discussions, at first only listening, but later contributing comments and questions. There was a text and reference materials ranging in length from 10-200 pages to be read outside of class. In addition, students were to do a project or research paper of about 20 pages.

The pre-session usually was devoted to checking understanding of the assigned readings. Since the reading level of the students was at about eighth grade, reading was a serious problem. In a separate ESL reading class, the Math Curriculum text was also the reading text, so there was considerable additional support there.

The post-session usually was for debriefing to check students' comprehension of class discussions. That meant checking students' notes, explaining vocabulary, clarifying concepts, and making sure they understood the assignment for the next time.

It was apparent early in the term that the Saudis needed information and experience with

American high schools to fill in at least some of the background that all American students already have. Therefore, arrangements were made for them to visit math classes at Corvallis High School for two weeks with the generous cooperation of the high school math teachers.

Another need was the ability to use the library. The students had to be made aware of the reserved-book room for the supplementary readings, the special science library, and the curriculum library, in addition to the card catalog and stacks.

The greatest hurdle was the term paper. The students received some instruction as to form in a special ESL writing class. For topics, they consulted the math professor, and for resources and organization, they saw me. In some cases, the high school math teachers gave considerable help on content.

Since that class (Spring 1979), the format of the sandwich class has changed to that of an "open-face" sandwich, retaining only the post-session of English. The change was made mainly because of the heavy demand on teacher time.

Results are best when course requirements are known well in advance, and when the subject-matter professor is willing to cooperate in understanding and meeting the needs of his foreign students. This should in no way be taken to mean "watering down" the course, but rather selecting appropriate courses and appropriate teaching/learning strategies.

For low-level language students in high level academic courses, the sandwich can be a viable vehicle for moving the students toward their goal. It can cut the mustard, lettuce say, in helping them ketchup.

* * *

BOOK REVIEW

Halliday, M.A. 1978. Language as Social Semiotic: The social interpretation of language and meaning. Baltimore, Md. University Park Press. 256 pp. references. indices.

REVIEW BY: Lita Verts

Although the examples used in this text are basically literary and social rather than scientific or technical, it speaks to the theories of discourse analysis in a clear and precise way and should be very useful to anyone engaged in analysis of materials for special purpose presentation. Halliday considers "languages for special purposes" as a register (page 35), however, and the remainder of the text must be read with that in mind.

Chapter 7 - "The sociosemantic nature of discourse" - is almost a primer in discourse analysis. Halliday accepts text as the basic unit of the semantic process. He states (page 135), "A text, as we are interpreting it, is a semantic unit, which is not composed of sentences but is realized in sentences." He also discusses the indeterminacy of the concept of text as opposed to clause or syllable. He explores the influence of choice on the final form of the text.

This book is written precisely and with little unnecessary verbiage. Even the chapters which are concerned mainly with social structure have something to contribute to the total understanding of discourse analysis and should not be omitted by the reader as irrelevant.

A long list of references is appended which is always valuable. The book is indexed both by subject and by authority quoted. For the professional seeking to understand the processes of discourse, I highly recommend this volume.

* * *

CONTRIBUTIONS OF SPECIAL PROGRAMS TO AN IEP

Of particular interest to established intensive English programs (IEP) is the spinoff created by conducting special programs. In 1975, OSU created an English for Chemistry course for its Libyan Engineering Project. The course went on the shelf until recently, when it was reinstated for the Riyadh Electric Company project, a group of students who are taking undergraduate chemistry at a local community college concurrent with language study at OSU. While the course is offered by and for the Riyadh group, it is open as a free elective to regular ELI students.

Similarly, an EBE course originally developed for Saudi Arabian Basic Industries Corporation management personnel is now offered as an elective to upper level ELI students and is being refined for an incoming Japanese Development Economists program.

To some extent, this answers one of the major problems of fielding ESP courses-- the high front-end costs of developing courses to meet specific objectives. Once these courses are on the shelf, they can be exploited at normal costs when the need recurs, and adapted into elective courses for heterogeneous classes of regular IEP students.

To get the courses on the shelf requires a conscious documentation effort. At OSU this has increasingly taken the form of providing classroom teachers paid release time to shape their lessons into manuscript form and then providing electives in which to field test the materials.

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AGENDA

IVth ANNUAL EST CLEARINGHOUSE MEETING

TESOL Convention, San Francisco

PLACE: Imperial Ballroom
DATE: Saturday, March 8, 1980
TIME: 10:15 - 11:30 AM

CHAIRPERSON

Sharon Abrams, co-editor, Special Issue 24.
Brief remarks to open the 1980 EST Clearinghouse meeting.

* * *

FIVE MINUTE STATUS REPORTS

1. English for Business and Economics — Ann Johns, co-editor, Special Issue 32
2. Vocational English — Jo-Ann Crandall, editor, Special Issue 28
3. Medical English — Margaret Van Naerssen, frequent Newsletter contributor
4. Advanced ESP Training — John Lackstrom, Academic Coordinator, ESP Summer Institute

OLD AND NEW BUSINESS

Karl Drobnic, Director, EST Clearinghouse

1. A summary of Year 3 projects and operations
2. Directions for Year 4

   The meeting will be open for suggestions from the floor.
   Some suggested topics:

   a. encouraging basic research
   b. publications the Clearinghouse should facilitate e.g., an ESP journal, books on various aspects of ESP.
   c. establishing an advisory board
   d. funding for Clearinghouse projects
   e. sponsoring summer ESP institutes

◆ SPECIAL ISSUE ◆

Issue #36
March, 1980

English for Specific Purposes

◆ TECHNICAL ENGLISH IN ENGLAND ◆

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"ESP AT THE CROSSROADS"

By Tom Hutchinson and Alan Waters

In guest-editing this issue of ESP Newsletter our aim is to review the present state of ESP, to raise certain questions and, where appropriate, to suggest alternative procedures in the light of our work in ESP course design at the Institute for English Language Education, University of Lancaster, U.K..

1. Needs Analysis

1.1 A benificial aspect of the growing body of ESP dogma is the increasing emphasis given to target situation analysis as a curriculum design prerequisite.* There are, however, a number of problems associated with how it is managed, what it should identify, and how the data obtained influences teaching-learning decisions.

1.2 First, 'management' problems. There is a disquieting trend towards isolating needs analysis from other aspects of teaching and learning. The application of elaborate analysis models (e.g. Munby 1978) demands a curriculum 'expert', a creature apart from the teachers and learners (on whose crumbs they nevertheless depend). The whole central business of why teachers and learners are taking part in an English language curriculum in the first place is thus put at one remove: the inevitable 'paper reality' takes its place - static, sterotyped, compartmentalised.

Logistical constraints very often force curriculum designers to evolve a more convivial approach than this (Drobnic, 1978). We need to recognise, however, that making needs analysis a central part of the curriculum activities which teachers and learners share in, has a logic of its own.

1.3. Second, and more fundamentally, are the problems associated with the nature of the data identified by needs analysis. The aspects of the target situation which are usually given greatest prominence tend to be merely 'surface' or 'performance' features. A glance at a mechanical engineering class in a Technical College, for example, will reveal that the topic is concerned with mechanical engineering, that there are texts about mechanical engineering and so on; but what the students are expected to cope with should not be confused with what the students require in order to cope. A distinction needs to be drawn between the end - in this example, understanding a lesson on a mechanical engineering topic - and the means. It is necessary to examine the underlying competence which the learner must bring to the mechanical engineering classroom, or to the study of any specialised subject.

To illustrate the distinction we are making, consider the example of the native speaker student entering a British technical college to study, say, Electrical Engineering. He will have had no previous experience of studying the subject, since it is not part of an English school curriculum, and cannot be assumed to have any knowledge of either the subject itself, or the specific terms associated with it. Yet, assuming he is reasonably intelligent and attentive, he will be able to cope adequately with the flow of new information. It would also be reasonable to assume that if he had enrolled instead for a different subject - technical or otherwise - he would also have been able to cope : students from the same educational background manage to, at least.

How is this possible, unless there is a basic Underlying Competence that, largely irrespective of subject, enables the student to interpret the flow of new knowledge?

In fact, this Competence is fundamental to the whole teaching-learning process, because it is the starting point for the interaction of teacher and student in the transfer of knowledge.

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*(footnote) Nevertheless it is a simple fact that most published ESP course books, despite the claims implicit in such titles as 'Technical English', are not supported by the thorough examination of the communicative realities of their 'specialism' that is necessary.

Before he can start to teach a group of students, the teacher must first make an analysis of what the students already know (cf. Schegloff, 1979). On the principle of working from the known to the unknown the teacher will take the result of his analysis as the basis on which to construct the new complex of knowledge. He will use what the students already know in order to explain, exemplify, and contextualise the new information that he has to convey.

It is the possession of the knowledge and abilities the teacher assumes he has that enables the student to understand and remember the new information that is given on the basis of that assumption. Thus if we are to prepare the overseas student adequately for, say, technical instruction, what he needs to acquire is this assumed competence.

Clearly, it is not possible to make the overseas student into a native speaker, nor even if it were possible, would this be necessary. Not every aspect of the native speaker's competence will be exploited in the technical classroom, and the foreign student will already possess many of the features in his mother tongue. We need to look at what the native speaker student brings to the target situation in terms of his Total Competence and then consider this in the light of what happens in the technical classroom in order to discover what elements of the Total Competence are exploited and activated in the target situation.

In Figure 1 then, we need to consider both the Underlying Competence and the Target Performance Repertoire to establish the vital link between them, shown in the diagram by the shaded area. This overlap represents the essence of the knowledge and abilities that are assumed and exploited in the target situation and therefore represents the Competence that the prospective 'specialist' student must develop through the ESP curriculum.

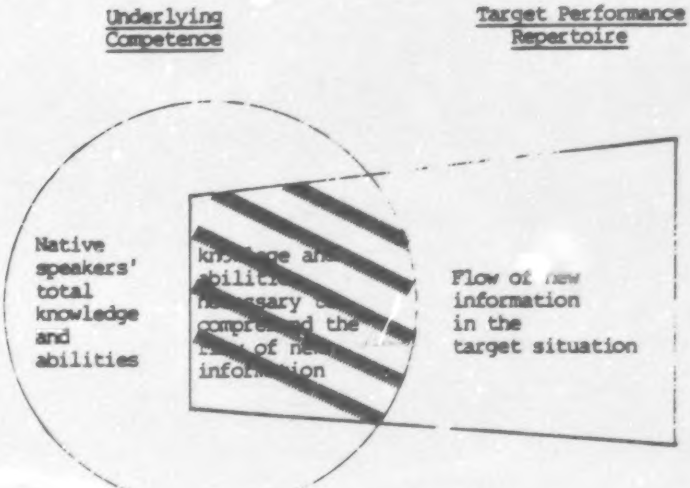
Underlying Competence
Target Performance Repertoire
Native speakers' total knowledge and abilities
knowledge and abilities necessary to comprehend the flow of new information
Flow of new information in the target situation

Figure 1: The Basis of the ESP Curriculum

1.4 The third 'problem area' identified above concerns the relationship between the findings of needs analysis and the content of the curriculum. The tendency has been for the performance repertoire - real or imagined - to form the basis of texts in the teaching programme. The points we have already made about the primacy of the target competence, and its relation to the curriculum, should have already clarified our disagreement with this widespread practice. It can be objected to on other grounds, too.

Input material taken unadulterated (or nearly so) from the target context presents difficulties over content. Firstly, a text does not exist in vacuo but has a position within a body of knowledge. The specialist teacher does not suddenly produce a text on, say, transistors; this text will form part of a lesson (usually, involving an initial demonstration), which will form part of a series of lessons on the basics of radio communication, which in turn will form part of a technical curriculum. In the 'authentic' situation, therefore, much of the work of understanding the new text will be achieved by reference to other parts of the lesson, to previous work in the series and to frames of reference which the learners have derived from other experiences and knowledge. Coming to it 'cold' in the ESP classroom, the student is denied these contextual clues. Comprehension is, therefore, more difficult, and what is of greater long-term importance, the student is less likely to develop the strategies that will enable him to exploit such clues.

Secondly, if langauge use in the classroom is to in any way simulate real communiation there must be discussion of the subject matter, and this will inevitably stray beyond the actual text being studied. Yet the ESP teacher often does not know enough about the subject matter to be able to handle this sort of situation; nor can the ESP institution generally provide the technical back-up needed to do so. Thus, the specialist knowledge becomes de-contextualised; classroom work gets bogged down in matters that neither teacher nor student fully understands; time is wasted in trying to explain specific vocabulary without the visual aids and expertise that the target situation can produce. As a result, there is little hope of any lasting language assimilation.

If instead there is an attempt to bypass the problems of content contextualisation and shared knowledge by a treatment of the texts which focuses only on their linguistic properties, there will obviously be no 'real' communication. The development and refinement of lingusitc resourses is of prime importance in language learning, but it is unlikely to occur in isolation from other, more fundamental, knowledge and interests. Put another way, if you are an expert of fluid mechanics, you will probably be able to interpret the gist of a discussion on fluid mechanics in language X, of which you may know next to nothing; on the other hand, you will probably be unable to make any sense of a mother-tongue discussion about, say microbiology, if you know next to nothing about microbiology.

All three problems tend to produce texts and exercises which contain very few or no opportunities for the learner to grapple with new information, or with new slants on familiar information. Such materials become just a package of exercises in linguistic analysis (Coulthard, 77, Ch. 7) for which the average ESP student, in our experience, has little interest.

2. Target Competence : an example

To exemplify a number of the points made so far, we will draw on our recent investigation of communication in the British technical college.

The Competence required of the technical student is, of course, very complex, but for the purposes of this paper we can consider three aspects: mode, language and knowledge of the world.

2.1 Mode: Technical communication is predominantly visual and oral, with the visual being the most important element. The typical lesson centres around a practical demonstration, i.e. a presentation using a visual display of some kind - an actual machine or apparatus, a model, diagram, chart, graph, etc. Language is used in close co-ordination with paralinguistic features such as gesture and gaze direction, to comment upon, highlight or explain features of the visual display. The technical student must, therefore, be able to cope with the standard visual modes of representation and should be able to interpret information, both as receiver and producer, through integrated combinations of the visual, oral and written media.

2.2 Language: The language used in technical education is not, except for a few examples of terminology, subject-specific nor even specific to technical communication. Everyday language is used.

We can highlight four reasons for this. Firstly, since the language is predominantly visual-related, the need for specific terms and expressions is lower because the visual display gives precise meaning to objects and actions. Secondly, the teacher cannot assume any knowledge of specialised terms on the part of the students, because the subject is new to them. But he can make use of the very wide technical and semi-technical vocabulary that a native speaker, by virtue of living in a technological society, would possess: terms such as fuse, friction, trigger, screw, tube, valve, etc. Everyday English has a very wide range of such terms. And any subject-specific terms that do occur will normally be explained using this everyday knowledge. Thirdly, technical English is only an adaptation of the existing resources of the English language. Many expressions with a technical sense, therefore, are easily understood and memorised by the native speaker because he is simply extending the use of a known concept: e.g. grip, saddle, play, drag, drum, sleeve, head, chip, etc. Lastly, the socially interactive nature of the practical demonstration (Hutchinson, 78) will compound this tendency to use conversational language.

2.3 Knowledge of the World: Understanding discourse is not just a question of knowing the language. Use is also made of conceptual and factual knowledge. Teachers exploit such knowledge to illustrate, exemplify and explain the new information they have to convey; again as with the language, it is general technical knowledge that is used - layman's technology e.g. the workings of a car, the use of electricity and water in the home, domestic appliances, etc - and a school level knowledge of general science.*

2.4 Thus the Underlying Competence required of the technical student is that required for any effective use of language viz. an ability to receive and transmit information effectively through integrated combinations of visual, oral and written media. The linguistic and factual resources that the student requires are those of the technically-minded layman not the specialist or academic.

2.5 Implications for ELT: It must be obvious from this brief sketch that there is no justification for subject-specific ESP materials. The Competence we have discussed is transferable to almost any technical subject, because it operates from the basis of the student's knowledge and abilities on entering technical education - a point at which no specialised knowledge can be assumed by the teacher and therefore will not be exploited.

Furthermore, the use of self-sufficient written texts to exemplify technical discourse is misplaced since the precise forms and language use of this medium are not representative of the greater part of technical communication.

Does this argument, then, mean that ESP should be abandoned altogether? We think not. The basic orientation of teaching materials still needs to be towards a technical content, firstly because the prime interest of technical students is in technical knowledge is assumed in the target situation by the teachers. The need is for a shift of focus from the surface structures of technical discourse to the underlying interpretive strategies required to cope with such discourse, and from the specific language and content of the 'academic' text to the more generative knowledge and language of popular technology in whatever form it may be expressed.

3. Materials and Methodology

3.1 Organisation: The materials we have devised in the light of our research are organised into fourteen Units each based on a general topic, e.g. Metals, Sound, Electricity, Light, Chemistry, Pumps, Meteorology, etc. The topic basis simulates the way in which a body of knowledge is built up. It makes it possible to have tasks of greater complexity, since each lesson is not weighed down with new content, and it enables the student to develop and refine his ability to exploit his existing knowledge in interpreting the flow of new information. As the topics are concerned with popular technology and general science, no specialised knowledge is required on the part of the students or of the teacher.

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*(It should be noted that, in the British Technical College, the knowledge exploited is not only technical or scientific knowledge; a large amount of socio-cultural information is also used, but how far this is applicable to situations outside Britain we cannot say).

Each Unit is divided into five or six Sections of two hours teaching each. The Sections are sequentially linked both in terms of Content and of the development of the student's communicative competence (see below: 'Tasks'.)

3.2 Input: Input material is drawn from a variety of sources regardless of the language in which it is expressed - school-level science, consumer information, do-it-yourself manuals, publicity and information from manufacturers, etc. The media are also varied and the tasks which the students perform require an integrated use of the different media.

3.3 Tasks: The essential concept underlying the design of the materials is that the students should be presented with simple technical problems which they must solve by using English, rather than tasks about the use of English.

As they proceed through each Section and through the Unit as a whole, the tasks the students have to do become increasingly more complex, building up a body of knowledge and abilities and culminating in the final Section which requires them to make a full-scale presentation to the class, drawing upon this body of knowledge and abilities in order to e.g. describe a process, report on an experiment, explain a flow-chart, etc.

3.4 Methodology: Pair and group work is used extensively in order to create opportunities for communication about the topic. In essence what the students are required to do is to draw information from one or more sources and transmit the information in a relevant form and context to their peers.

3.5 Sample materials: See the following.

STUDENT WORKSHEET

Unit: Pumps

Section E: Group Work - Pump Mechanisms

Work in groups of 3 or 4.

Step 1: Each member of the group has a picture of a certain type of pump. Study your picture carefully.

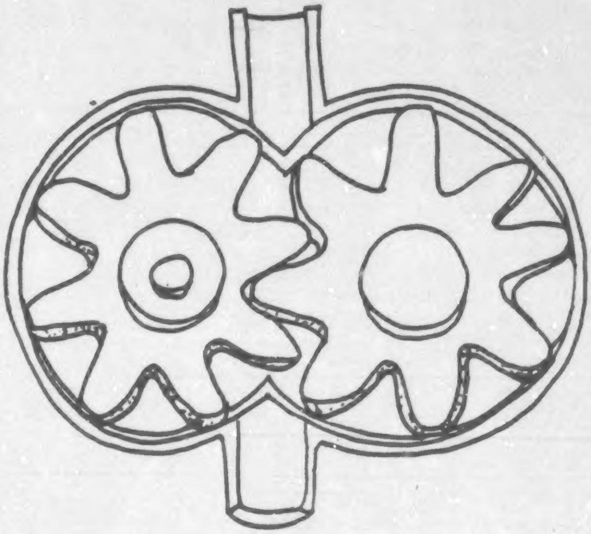
Step 2: In your group, discuss:

- what components the pump consists of
- how it works
- what advantages and disadvantages it has
- what sort of jobs it might be used for

Step 3: Draw a large-scale diagram of the pump. Label it and use arrows to show the flow of the fluid and the direction of the moving parts.

Step 4: Prepare a report, describing the pump. Consider all the points you discussed in Step 2 and put this information in your report.

Step 5: Using the diagram you have prepared, present your report to the class.



NOTE: Each group receives a diagram of a different kind of pump. This is just one example.

1978 © Tom Hutchinson and Alan Waters, Institute for English Language Education, University of Lancaster.

4. Some further considerations

Our argument also raises further questions which strike at the heart of many other current practices and beliefs in ESP, which space unfortunately prevents us from more than merely adumbrating here.

4.1 Is ESP for 'beginners'? The answer would generally appear to be: No. However, if what we are seeking to do is to activate the learner's 'process competence' (Breen and Candlin, forthcoming), - to refine and develop his existing knowledge and abilities towards the desired target competence - rather than merely attempt to teach a specific repertoire of language forms - the whole enterprise is put on a different footing. Learning is no longer dependent solely on the student's knowledge of the target language; and those other aspects of his competence - his previous mother-tongue language learning experience, his knowledge of the subject-matter and other kinds of knowledge in which his expertise may vary, but in no sense is he a 'beginner' - can be exploited as means to achieving the desired goal.

4.2 Should the ESP teacher involve himself in the subject-matter? His students are certainly likely to see learning English as a means, rather than an end in itself, and there is justification, on this ground alone, for the teacher to share their concern. In practice, however, this has traditionally created problems for the non-specialist teacher, asked to provide an authentic response to areas of knowledge in which he has little or no expertise (cf 1.4 above). Our concentration on the underlying competence - and on materials and methodology which ask learners to consider familiar information in a novel, problem-solving way - puts the teacher on much safer ground. His concern is to facilitate communication on topics (and slants on topics) of concern to and within the grasp of the intelligent layman. The background knowledge this calls upon is surely something we can assume most ESP teachers will have by virtue of their own secondary schooling and their upbringing in a consumer-oriented, technologically-developed society. Communication can thus centre squarely on doing things with language, rather than merely commenting upon it.

4.3 What about teacher-training? It seems to be generally believed that the ESP teacher is a creature apart, a specialist whose training and expertise set him above the rest of the EFL profession. We hope the emphasis we have given in this issue to the large area of common ground between the ESP curriculum and 'General English' shows this belief to be erroneous. ESP has acquired this unjustified aura of separateness largely because its curricula - alone in EFL - are based on needs analyses. But does it really make sense to enter into any teaching-learning contract which does not have the needs of the learner as its prime concern? Keeping in mind what we have said about the use of needs analysis (1), surely the ESP formula should be the rule not the exception. Thus the ESP teacher is first and foremost a teacher, and the 'specialist' nature of his job in fact relates to that sensitivity to the needs of his students that every teacher must have.

4.4 Is ESP primarily concerned with writing and reading skills? Our analysis of the communicative realities of technical instruction show such an emphasis to be misguided. More fundamentally, however, ESP has perhaps suffered from the interest in 'surface' skill practice so prevalent in mainstream ELT. Written and spoken English are the realisations of deeper communicative processes - the dynamic organisation of information according to the varying needs of the audience, the speaker/writer's knowledge of the subject, the linguistic and other resources available, and so on - and, although competent skill-use will not necessarily follow automatically from success at this deeper level it is certainly a necessary prerequisite, and one which has been given far less attention in ESP than it deserves. Perhaps the pedagogic model of discourse analysis applied to so many ESP programmes is due for critical scrutiny, or, at the very least, a re-assessment of its traditionally central role.

4.5 Do distinctions such as EST, EOP, EAP, etc make any sense? ELT as a whole is riddled with distinctions that appear to serve the needs of academic or bureaucratic analysis more than they honour the gestalt of the human learning experience, e.g. EFL, ESL, mother-tongue teaching, the 'four skills', and so on. Most of all, it is doubtful whether the learner sees any significance or attaches any importance to such divisions. The concomitant notion that each of these 'so-called' specialisms calls for widely differing approaches and resources is perhaps the most dangerous result of such labelling. Language teaching can perhaps be looked at more productively as a unity, of which an ESP-type curriculum is the desirable goal of all.

5. Conclusion

The problems which many teachers are currently experiencing in the ESP classroom derive directly, in our opinion, from the erroneous assumptions and practices we have noted. It is to be hoped that our own emphasis on the underlying competence required by the learner, the materials and methods we have devised to teach it, and our outline of possible alternatives will relieve many of these problems, and will make the teaching-learning process in ESP not only more effective, but more enjoyable, too.

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* * *

The EST Clearinghouse announces the second printing of:

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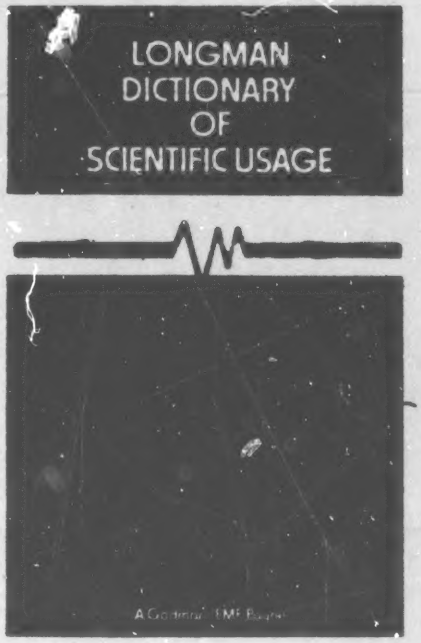

IVth Annual EST Clearinghouse Meeting
Saturday, March 8, 1980
TESOL San Francisco

Approximately 200 people attended the IVth Annual EST Clearinghouse Meeting, which opened with a brief review of Clearinghouse history by Sharon Abrams, chairperson of the event. She noted that from its founding in March, 1977, the Clearinghouse has now grown into a network serving programs in over 45 countries, has sponsored two advanced training institutes for EST, and sponsored a variety of publications.

The opening remarks were followed by five minute status reports on EBE (Ann Johns), VESL (Jo Ann Crandall), Medical English (Margaret van Haerssen), and Advanced ESP Training (John Lackstrom). The inclusion of st[illegible] reports in this year's meeting reflected th[illegible]ening of Clearinghouse concerns during Year 3 to include aspects of ESP other than EST. A written version of the EBE report is scheduled to appear in Issue 37.

Karl Drobnic then addressed old and new business. Old business was a summation of decisions made at TESOL Boston and their effect on Year 3 operations. This included changing the name of the Newsletter, making VESL a special theme for Year 3 (see Special Issues 28 and 36, and the now quarterly VESL EXCHANGE column by Nick Kremer), the 1979 EST Summer Institute with 32 participants and a staff of 6, and the recently distributed national ESP Survey.

New business included the establishment of an ESP Journal, to be based at American University and edited by Dr. Grace Mancill (to be announce[illegible] in Issue 37), focusing on basic research for ESP as a Year 4 theme, establishing an Advisory Board to set agenda items for Clearinghouse Meetings and to formulate objectives, and announcing the appointment of Heinle and Heinle Enterprises as official sales and distribution agent for ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY. The second printing of that volume is now available (see announcement on page 6). Collation and distribution of the ESP Survey was also set as a Year 4 objective. The readership is urged to check to see that their copy of the survey is returned, as the survey will be compiled into a directory of ESP oriented personnel and institutions.

english for specific purposes

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THE ESP JOURNAL

An International Journal of English for Specific Purposes

The English Language Institute of The American University in Washington, D.C. announces the publication of The ESP Journal: An International Journal of English for Specific Purposes, a refereed journal to be devoted exclusively to the ESP approach to the teaching of English. In recognition of one of the goals set at the EST Clearinghouse meeting at TESOL San Francisco, the Journal will cooperate closely with the Newsletter for the purpose of encouraging basic research, an aspect of ESP which needs intensive development. Journal articles will treat a broad range of ESP activities, including not only basic research into the language and methods of teaching ESP, but also teacher training, news and reviews of developments in instructional materials, and descriptions of ESP programs in any of the varied institutional settings in which they occur, both in English-speaking countries and overseas.

The Editor of the Journal, Grace Stovall Mancill, is an associate professor of linguistics at the English Language Institute of The American University, where her responsibilities include the training of teachers of EFL/ESL and the teaching of composition and reading courses in English to international students. Dr. Mancill is the editor and co-author of several texts used in Iran and Saudi Arabia for the teaching of English to technical personnel. After attending the 1979 ESP/EST Summer Institute at Oregon State University, she designed and presented a graduate level course in the teaching of English for Specific Purposes at The American University during the Spring 1980 semester. This is one of only a handful of ESP methodology courses available in the United States.

In Issue 33 (December 1979) of the Newsletter, Karl Drobnic pointed out that despite the combined efforts of the Newsletter, ESPMENA, AL MANAKH, and EST/ESP CHILE, there is still much more material ready for print than can find timely publication. ELI at The American University hopes the the ESP Journal will help to disseminate such information to those who need it. Within a very short time, subscribers to the Newsletter will be receiving subscription information on The ESP Journal, as well as guidelines for the submission of articles and reviews. Pass this information along to your friends and colleagues. Current plans are to try to publish the first issue of the Journal in September or October 1980. An enthusiastic response from writers of articles and from subscribers will be important in getting the journal off to a good start.

Contact: Grace S. Mancill,
ELI, The American University
Washington, D.C. 20016

READER RESPONSE

Issue 31 of October 1979 (page 6) contains a list of five "New Titles in EFP ('English for Professionals') Series," including International Economics and Development by David H. Wyatt.

In Issue 32 of November 1979 (page 2), Mary Todd Trimble writes of the shortage of American business English texts and states:

> David Wyatt's recent book is a welcome addition to help with reading and listening comprehension skills in this area (International Economics and Development, English for Professionals, American Language Academy and International Communication Agency), and hopefully will soon be followed by others.

In fact, it had already been followed by Principles of Management by Sheldon Wise, David Wyatt's successor as Director of English for Special Purposes at the American Language Academy (ALA). This book, like Wyatt's, was prepared at ALA for ICA and published in their English for Professionals series.

However, we would like your readers to know that both texts have been thoroughly revised and much improved, and have now been published by ALA as Essentials of International Trade by David Wyatt and Essentials of Management by Sheldon Wise, as part of The ALA ESP Series, along with Lectures for Listening Comprehension by William S. Annand and Essentials of Aviation Technology: Aviation Mechanics by Noel W. Schutz, Jr., and Bruce L. Derwing (now being revised). Furthermore, the ALA publications are readily obtainable from ALA, whereas the ICA texts have limited distribtuion and only outside the United States.

Incidentally, your readers might wish to know that David Wyatt is rejoining ALA's division of English for Special Purposes, from which we happily anticipate continuing contributions to the field of ESP.

We would be extremely appreciate it if you could bring the above information to the attention of readers of the ESP Newsletter.

Stanley F. Pickett
President, American Language Academy

* * *

THE ASTON SPECIALISED EFL MATERIALS SERIES

It is now becoming clear that there exist in various parts of the world specialised EFL materials of imagination and good craftsmanship which also reflect appropriate initial research and revision in the light of experience. If such materials were more widely available some of the current massive duplication in materials production might be avoided. It is partly in response to this situation that the Aston Specialised EFL Materials Series has been created. Although the emergence in the seventies of such bulletins as ESPMENA, EST Newsletter, ESP/EST Chille and Al-Manakh has done much to disseminate ideas and general information on courses and current interests, this has not been matched by a parrallel development in the dissemination of the materials themselves. It has, of course, been argued in the last few years that comprehensive needs analysis will lead to such highly-specific course requirements that the import of outside materials into an institution will be precluded; however, recent developments now emphasize that identification of needs alone is not necessarily a sufficient condition for successful courses.

The inauguration of the series is also partly a response to a realization that the major ELT publishers are now unlikely to have a serious interest in publishing new materials with relatively limited potential markets. Thus, the opportunities for publishing good quality materials aimed at smaller audiences is decreasing. We envisage that the materials published could be specialized in a number of different ways; for instance, they may be designed for relatively small numbers of advanced students, or they may deal with a minor ESP area such as English for Academic Legal Purposes, or they may treat in depth some particular communicative task such as A Business Presentation, or they may otherwise be 'awkward' in length, organization or methodology.

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* * *

INTERNATIONAL SYMPOSIUM IN PERU - OCTOBER, 1979

The *First International Symposium on the Linguistic Barriers in the Development of Science and Technology in the Countries of the Andres Bello Convention* (i.e. a cultural convention between Bolivia, Chile, Columbia, Ecuador, Paraguay, Peru and Venezuela) has been held in Trujillo (Peru), 1-6 October 1979. This event was organized by the National University of Trujillo and the Peruvian Association of Language Teachers. It was sponsored by SECAB and FIPLV. The symposium was also supported by UNESCO. About 50 scholars and teachers had discussions in both plenary sessions and working groups. There were 33 papers - mostly from South American countries - on interlinguistic language barriers (especially between Spanish and English as confronted with various vernaculars in South American countries). The final conclusions primarily emphasized the necessity of standardization of technical terms in Spanish, the need for providing scientific and technical information in vernacular languages, the duty of the political, cultural and scientific authorities to take the cultural identity of the different peoples (nations) into account, and the indispensability of making it possible for scholars and teachers of developing countries to attend international congresses and meetings. For further information, contact Ernesto Zierer, Executive Secretary of the Organizing Committee, Departamento de Idiomas y Linguística, Universidad Nacional de Trujillo, Cuidad Universitaria, Trujillo, Peru. The second symposium, on the same theme, will be organized in Arica (Chile). For more information, write to: Bugarin Garcia, Katty, Ed. Chungara AY 12, Arica, Chile. (From ALSED Newsletter.)

* * *

VESL EXCHANGE

COLUMN EDITOR: NICK KREMER,
VALLEY VOCATIONAL CENTER

VESL: GATHERING MOMENTUM

As with the entire field of ESP, VESL is becoming a focus of attention in ESL. A series of meetings and conferences around the United States illustrate the quickening interest in relating ESL instruction directly to students' job training and employment needs.

The TESOL International Convention in San Francisco in early March was the scene of several intensive exchanges of perceptions and resources. The dialogue extended from evening rap sessions throughout the halls to Henry Widdowson's plenary address. Publishers began to acknowledge that indeed there is an audience clamoring for general and occupational specific VESL materials.

One TESOL colloquium, "Designing Effective Vocational ESL Programs and Materials", devoted six hours to VESL. The fifty participants came from Australia, Saudia Arabia, and Libya as well as from the United States and Canada. The morning session presentations took the participants from the general, Lynda Ball of the Minnesota Department of Education outlining the goals of VESL, to the specific, David Hemphill of Chinatown Resources Developmnet Center (San Francisco) encouraging the use of the student's native language to convey selected information. In the afternoon the colloquium divided into working groups in order to address some of the key issues in VESL. Specific recommendations were made regarding teacher training, working with labor and industry, and establishing a communications network to keep VESL practioners in touch with each other.

As a direct result of the day long session a paper is being submitted to On TESOL, a VESL program directory will be compiled, and the TESOL Adult Education Interest Group Newsletter will be used as a continuing forum for VESL information.

There were several other presentations on VESL at TESOL. Representatives from the Tacoma Community House (Washington) and the Indo-China Teacher Training Center (Illinois) discussed meeting the employment language needs of Indo-Chinese refugees. The Illinois group offered several models for addressing the job needs of refugees. Chinatown Resources Development Center of San Francisco advocated going beyond language by incorporating cultural considerations in VESL instruction. Joanne Dressner of Alemany Community College (San Francisco) outlined the language skills necessary for getting a job. The Valley Vocational Center (California) staff offered a selection of successful teaching techniques used with low-level adult VESL students.

NAPCAE

Another important national meeting was also held in March, the National Association for Public Continuing and Adult Education (NAPCAE) brought together in McAllen, Texas ESL and bilingual education proponents to consider the academic and vocational needs of limited English speaking adults. Bilingual vocational and VESL programs from Iowa, Minnesota, Wisconsin, Texas and California conducted workshop sessions and exchanged viewpoints. Considerable interest was generated by Mary Galvan's discussion of her forthcoming Bilingual Vocational Oral Proficiency Test. The test is designed to determine if students can benefit from regular vocational instruction or need to receive some form of modified instruction.

OFFICE OF REFUGEE AFFAIRS

In February a small but significant meeting was held in Washington, D.C. by the Office of Refugee Affairs (HEW). Kay Rogers, Director of Program Development, called together representatives from key Indo-Chinese Refugee Assistance Programs to draw up suggested ESL programs models that would best serve the needs of refugees. General VESL (job interview, job application, etc.) and Occupational Specific VESL are two of the six resulting models.

Several other meetings, conferences, and planning sessions have been taking place. Wisconsin is in the midst of drawing up a Bilingual Vocational Training Plan. Last December the Adult Education Division of the California State Department of Education called together representatives of education, industry, and other state agencies to consider how to better meet the VESL needs of limited English speaking adults. As a result the Department is making VESL one of its staff development priorities for the coming year. Countless VESL classes and programs are starting up at vocational centers, community colleges, adult schools, and in businesses all over the country.

VESL is on the move.

FUTURE COLUMNS

The next column will deal with designing occupational specific instructional modules. I would appreciate some input from anyone teaching electronics-VESL or welding-VESL. The column after that will deal with research into the language of the work place. Again contributions are sought.

Address all correspondence to:

Nick Kremer,
Valley Vocational Center
15359 E. Proctor
City of Industry, CA.
91745

(213) 961-1073

THE LEXICAL DIFFICULTIES OF ENGLISH MEDICAL DISCOURSE FOR EGYPTIAN STUDENTS

By Janet I. Anderson,
Iowa State University

In Egypt, where the language of medicine is English, medical students struggle to improve their English reading proficiency at the same time they are studying medicine. This is because they do not get any practice reading scientific material in English before entering the university. Although English is taught as a foreign language in the national secondary schools, Arabic is the medium of instruction in all subjects, including the sciences.

While on the faculty at the American University in Cairo, I conducted a course in English for medical students from the national universities in Egypt. My earlier training in nursing enabled me to adapt materials to the course which are used in the first year medical curriculum at Cairo University. I discovered early in the course that the major impediment to fluent comprehension of these medical materials was vocabulary difficulty. The students reported that they spent an inordinate amount of time looking up words in their bilingual dictionaries and trying to decide which meaning of a word was the most appropriate one for a particular context.

In view of these difficulties, I felt it would be useful to conduct a survey to determine to what extent the students had difficulty with (1) basic or "core" English vocabulary, (2) medical terminology, and (3) sub-technical words which Cowan (1974) defines as words which are used across different scientific disciplines, but which tend to occur infrequently in general word frequency counts. The purpose of the survey was two-fold: to establish a basis for the selection of vocabulary to be taught in the remainder of the course, and to identify problems that might be investigated on a larger scale at a later date.

The 11 students who participated in the survey were all native speakers of Colloquial Egyptian Arabic enrolled in Egyptian Universities where they had just completed their preliminary year of medical study. During this year they had studied the basic sciences using English textbooks. But in spite of this year of English reading practice, their mean score was 57.1 on the Michigan Test, 8 points below the minimum score of 65 recommended for academic work in the sciences (Manual of Michigan Test of English Language Proficiency, 1977).

Lexical difficulties were investigated through a self-report method in which the students noted all of the words they did not understand in 1,885 words of continuous text on respiratory physiology taken from a textbook used at Cairo University (Talaat 1975). The students were instructed to report only those words which interfered with their comprehension of the text, and which they would therefore have to look up in a bilingual dictionary. Each student was given a copy of the 1,885 word text and instructed to circle all such words.

Each word circled by at least three students was listed and classified according to whether it was medical or non-medical. The non-medical words were then categorized according to their frequency of occurence in the Kučera-Francis (1967) word-frequency count. The corpus used for the Kučera-Francis count consisted of 1,014,232 words of natural-language text representing a wide range of styles.

It was found that of the 49 words reported by at least 3 individuals, 17 words (34.7 percent) were medical terms. Examples of these are peristaltic, serous, and exudate. Of the remaining words termed non-medical, only 8 words (16 percent) ocurred in the Kučera-Francis count more than 25 times and were thus ranked in the 4,000 most frequently occurring words in the corpus. Examples of these "core" English words are squeezing, pause, and invasion. The remaining 24 words (48.9 percent) occurred with a frequency of less than 25 and 3 of these did not appear in the corpus at all. Most of these low frequency non-medical terms fit Cowan's definition of sub-technical, because they are used across different scientific disciplines. Examples of these words are mediated, manifestations, and obstructed.

The fact that the students had little difficulty with high frequency "core" English vocabulary, reflected in the 16 per cent reported above, was encouraging and suggested that the students had a good foundation in basic English vocabulary. But their difficulties with the more specialized vocabulary indicated a need for E.S.T. instruction.

Therefore, I concentrated my vocabulary teaching efforts for the remainder of the medical Englsih course on the more specialized vocabulary in materials I had adapted from a physiology textbook. Since technical vocabulary is best taught by the specialist and not the language teacher, I should have concentrated primarily on sub-technical words. However, my background in nursing enabled me to teach the technical terms as well, and to explain some of the physiological concepts that were presented in the material.

The results of this small survey need to be followed up with similar studies on a larger scale, for this kind of research has important implications for vocabulary selection in E.S.T. courses. Such surveys should be conducted using materials students actually use in their academic work in order to realistically assess their vocabulary needs.

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ENGLISH FOR BUSINESS AND ECONOMICS:

SOME OBSERVATIONS at the 1980 EST Clearinghouse Meeting.

Ann M. Johns
American Language Institute
San Diego State University

English for Business and Economics cannot be subsumed under major ESP rubrics so far invented.

It is not English for Science and Technology, although there are a number of shared grammatical and lexical features and superficial similarities in tasks such as the preparation of a technical report and use of illustrations. It is not English for Academic Purposes, although academic business courses do draw from a number of other disciplines such as psychology and sociology for research and analysis. It is not vocational ESL, although secretaries and others in business are often exposed to the English of manuals.

What is it then? It is, first of all, at least two somewhat overlapping sets of features. There is the English required of international business students who represent one-fifth of all foreign students enrolled in American universities. This includes the English of accounting, marketing and management classes.

Second, it is the culture-specific applied English of American (or English) business people, a set of signals or code, signifying that the speaker/writer and the reader/listener are members of the same club. It requires unfevered writing--without emotion--not including the colorful verbs and modifiers so often encouraged by freshman English teachers. (A noteable exception: the English of sales letters.) It is characterized by formulaic, impersonal prose. In speaking, the formulas are taken from sports, politics, and sexual allusions. In writing, stilted but commonly used phrases are part of the jargon:

as per your request	interface
enclosed are	finalized
looking forward to	tasked

Texts in business for non-native speaking students are being published with increasing frequency. The least valuable of these focus on practice of vocabulary--not of the applied business code but standard business terms (e.g., stocks, bonds, balance of payments) which are easy to learn and require no communicative strategies. Other, more valuable texts, still have weaknesses: in an attempt to cover both applied and academic English, they do neither adequately. Often they embody authors' assumptions that EST and EBE have the same features; so relativization, the passive, noun-compounding, EST connectives and rhetoric are stressed.

We need EBE texts--but first we need careful research to answer a number of questions such as:

1) What rhetorical modes are most common to applied and academic EBE?

2) What grammatical elements occur most frequently in these registers?

3) What situations and/or tasks are most common in applied EBE? What special notions are most appropriate for application of these situations?

4) What oral communicative signals are most necessary--for interrupting, giving others the conversation, leading, changing subjects?

5) How can we best understand and communicate in the code necessary for membership in the applied business "club"?

American business communications teachers and researchers have given us some very good leads--especially in the area of club "membership". Now we need to work on careful, measured research for non-native speakers.

Some References:

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ENGLISH FOR ENGINEERS

Denis Trussler,
Bedford English Study Centre

Bedford English Study Centre was set up with the main intention of providing English for engineers, scientists, and armed forces personnel, working in close collaboration with the local College of Higher Education and we have gained considerable expereince from this type of work. Initially we felt that the main problems would be attracting teaching staff who had a knowledge of and sympathy with technical work and in acquiring or providing authentic materials. These have indeed been problems but our experience shows us that there are more subtle and perhaps more intractable difficulties. In most disciplines the spoken discourse is more informal than the written but closely resembles it in many ways. However, close observations of the language of engineers reveals that it poses a problem in an acute form which the language of medicine shares to a lesser degree. In medical English the language of doctor-to-doctor tends to be full of Greek roots and formal statement, whereas the languages used by doctor to patient is often colloquial if not earthy. This is a measure of the divergence between the language of their training and the day-to-day usage of ordinary people.

Engineers derive their theoretical knowledge very largely from physics and all text books and most instruction manuals reflect this. Verb forms are often passive and the simple present is normal. Processes are described in latinate terms. The book may say "Invert the apparatus and inspect the bush for signs of corrosion", yet we observe that when engineers are talking to one another they use language almost totally derived from traditional craft usages. To give the same information as the book, the instructor or salesman will say "Turn it upside down and see if the rubber's gone".

The problem is intensified in that the traditional uses vary from one country to another or from one part of the country to another and, even from one firm in an industry to another. A mechanic at Ford will often describe something in rather different terms from one at British Leyland or General Motors. Naval engineers will certainly describe things differently from airforce or army personnel.

We are slowly building up our own reservoir of material but as yet, very little has been done at University level on the analysis of engineering discourse.

Sometimes we have students who have learned their engineering, in English, in other countries, such as India, Egypt or Russia. We find in most cases that they are very competent engineers, often with an obsolescent vocabulary and quite unable to understand the language used on a practical course of training or attachment. The main problem with such students is to find ways of dealing with their frustration and lack of morale. If they go immediately to further training, they can often make a complete hash of it because of their poor oral comprehension. Nevertheless, in trying to teach them the spoken language, we find that they will often consider this inferior to the written and hardly worth the effort of learning.

Nearly all engineers have very lively minds and are very interested in the new and the creative. After all, the great technological advances have arisen form the work of engineers but in the classroom they have certain difficulties which are shared with doctors and a few others. In order to make their work authentic we may take into the class real objects but these may in fact, be counter-productive. If, for example, you wish to teach students about the use of knobs and dials, you could take a multimeter into the classroom. Most engineers seem to react by either saying "We have seen one of these before." and then tend to lose interest, or, "We haven't seen one of these before. How does it work?" and lose all interest in the language for quite a long time afterwards while they play with the object. Paradoxically, a cardboard box with a pencilled-in dial and buttons for knobs can often show them that they are there to learn the language and not to learn how to use the equipment and, in fact, be far more effective.

◆ TROUBLESHOOTING INSTRUCTIONS (*Fine Print*#3, 1-80)
Stanley Legum of Kinton, Inc. used carefully controlled manuals to test how owner-operators of heavy trucking equipment understand troubleshooting instructions. His preliminary analyses show that: (1) interruptions of instructions that impose little or no memory load (e.g. forward skips) cause no comprehension difficulties; (2) interruptions that impose some additional memory load (e.g. back references that must be read to complete the task) cause considerable difficulty in comprehension; and (3) doubly-embedded back references cause almost total inability to follow the message.

POSITION

Fulbright award in TECHNICAL WRITING. Ministry of Education/Turkish Cypriot Office of Education, Nicosia, Cyprus. Six months within the period September 1980-June 1981. Requested is a specialist to train teachers of electrical, mechanical and civil engineering in methods and techniques of textbook writing, translating and adapting foreign textbooks; follow-up preparation and publication of at least one project. Stipend, roundtrip travel and other allowances totaling $8000-12000, depending on family status.

CONTACT: Gary L. Garrison
Program Officer, Middle East
Council for International Exchange of Scholars
Suite 300, Eleven Dupont Circle
Washington, D.C. 20036

(202) 833-4981

NEW PUBLICATION

Occasional Papers No. 22 of the Department of Language and Linguistics, University of Essex has just appeared, and is entitled *Aspects of English for Specific Purposes*. Copies can be obtained from the EFL Unit, Department of Language and Linguistics, at a cost of £2 (which includes postage); University of Essex; Wivenhoe Park, Colchester, CO4 3SQ, England

CORRECTION

Linda Blanton's review of *Discovering Discourse* in issue 31 of your ESP Newsletter refers to me as the editor of the book. I feel I should point out that my role was advisory and that the credit for the book, and the series of which it is a part, should go to the principal author John Moore and his associates at the University of the Andes Bogata.

Professor Henry G. Widdowson

ABSTRACTS AVAILABLE

Fiscal Year 1979

Abstracts for Bilingual Vocational Training Grants, Bilingual Vocational Instructor Training Grants, and Grants for Development of Instructional Materials, Methods and Techniques, as prepared by the Project Directors, are available free by contacting:

Bureau of Occupational & Adult Education
Division of Research and Demonstration
Demonstration Branch
Room 5026, ROB-3
400 Maryland Avenue, S.W.
Washington, D.C. 20202

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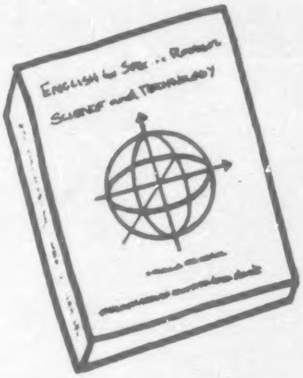

English for Specific Purposes:
Science and Technology

MARY TODD TRIMBLE
LOUIS TRIMBLE
KARL DROBNIC
EDITORS

"... EVERYONE CONCERNED WITH EST/EBE TEACHING, CURRICULUM DESIGN, AND MATERIAL DEVELOPMENT SHOULD HAVE A COPY CLOSE AT HAND."

— ROBERT KAPLAN, TESOL QUARTERLY

FOR COPIES CONTACT: HEINLE AND HEINLE ENTERPRISES, *29 Lexington Road, Concord, MA. 01742*

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POSITIONS AVAILABLE

Several positions are available for teaching English to Japanese technician-managers in a northern California plant. This eighteen month Language and Cross-Cultural Training Program will be integrated with a technical skill training program and with a comparable Japanese Language and CCT Program for an equal group of American managers. A program for both groups of spouses is also planned.

The positions range from $15,000 to $20,000 per year plus staff benefits and are scheduled for mid-summer, 1980, through December, 1981. Master's degree in TESL and experience with Japanese desired. Ability to team-teach in classroom and nonformal settings required. Material Development skills required for higher positions. Send resume and inquiry to Clifford Clarke, P.O. Box A-D, Stanford, CA. 94305.

ESP SURVEY RESPONSE

A popular rule of thumb is that a 3% response to a survey is a good showing. The ESP Survey mailed out in March looks like it will make the 3%, but the surprising thing at this point is the low response from Newsletter subscribers. Most of the response to date has been from those not in regular contact with the Clearinghouse. This indicates that the directory will not represent a sizable portion of ESP activity, which defeats the purpose of the survey.

Work on compiling the directory will begin around 15 June 80. I would appreciate it very much if you would check to see if you have returned your copy of the survey form. If you have not, I hope that you will take a few minutes to fill it out and send it in. -- The editor

MAY, 1980
ISSUE 38

English for Specific Purposes

KARL DROBNIC, EDITOR
LYNNE STINNETT, PRODUCTION
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COMMUNICATIVE SYLLABUS DESIGN

John Munby's COMMUNICATIVE SYLLABUS DESIGN (Cambridge University Press) has been such a part of ESP for so long that it seems a little out of place to be reviewing it at this late date. To be honest, the primary reason for this late review is that CUP did not get a review copy of the book to the Newsletter until recently. This however, gives the opportunity for a retrospective review, and for work that has been as influential as Munby's in the ESP movement, a retrospective is certainly justifiable.

To date, CSD has passed through three stages: rapture, disenchantment, and proper perspective. As the elements of the book began to surface at conferences and in proceedings prior to its publication, it swept through the ESP world with the force of the knee-jerk panaceas of the past that ELT is well-noted for. Munby offered the tool that would identify the restricted corpus of language that ESP aimed at. It was still early enough in the movement that ESP was influenced by "register", the expectation that it was only a matter of time until studies by such as Huddleston would identify a type of language characteristic of each specific discipline. It seemed natural enough, at the time, to expect that the marriage of register plus needs analysis would lead to ESP, all in a box and wrapped for delivery.

It is also a sad comment, perhaps, on the state of the profession at the time. With so many discipline's power brokers and decision makers trained in the dictums of structural linguistics and audio-lingual sequencing, needs analysis had long been relegated to the trash can (despite the fact that it had been around as accepted educational theory since at least the 1920's). Thus, as ESPer's followed their investigations into the scientific and vocational classroom, where needs analysis has long been an *a priori* practice for mounting educational programs, we had, at least, our Munby.

But even before CSD was published in book form, ESP leaders such as Henry Widdowson were counselling caution. In his Paipa address (1977), he warned that identifying the terminal language objectives, and where the student stood in relation to those, was a dangerous game. It identified a direct path, and the temptation was to take it. Had the frequency studies of EST syntax and lexis truly identified an EST register, then the direct path, authentic materials curricula would have probably been the right route in the majority of cases. But without the register, a criticism arose of Munby. It was a lot of work and it did not set curricula.

Still before CSD was published, Trimble was admonishing audiences that EST language was more a matter of degree than kind and Candlin (who helped Munby develop CSD) could politely refer to ESP as "fad" while developing his view of language as process. Small wonder, then, that by the time CSD was published, the stage was set for diametrically opposed views.

Publication brought needs analysis to a larger audience, and the temptation Widdowson had warned of was rediscovered on a broad scale. At the base of the problem was Heisenberg's Principle of Uncertainty, in applied terms one of the single most influential discoveries of the 20th Century. In brief, Heisenberg stated that we can know where an atom is, or we can know where an atom is going, but we cannot know both at the same time. Our observations simply change the rules of the game. So, too, with Munby.

Language is a process, and as soon as we set the student in motion towards the terminal language objectives, we change where he is. In analyzing where the student is, our observations change where he is going. It is a scenario that demolishes "set-piece ESP". In these terms, Munby takes on the mantle of Newtonian physics, which argues that there is a platform from which a subject can be objectively observed. It is well known that Newtonian physics works, but to a degree.

So again with CSD. It works as one step in the language teaching/learning process, and a valuable one. The systematic gathering and processing of data during the planning and formative evaluation stages adds significantly to the professionalism of our discipline, and the Munby model is worth enacting simply for the clear-headed thinking about our students it requires. CSD is one of the basic texts in the literature of ESP. It should be on the shelves of every departmental library, and the recommended reading list of every MATESOL program.

* * *

LONGMAN DICTIONARY OF SCIENTIFIC USAGE

A book that is the first of its kind is always hard to review, and that I have never reviewed a dictionary before makes the task more difficult. Further, upon opening the LONGMAN DICTIONARY OF SCIENTIFIC USAGE, it is immediately evident that this is no ordinary dictionary.

That LDSU is a reference book which would have saved me innumerable hours over the years is also immediately obvious. The twelve appendices alone, placed at the beginning of the book, make this book a logical beginning point for any ESP materials development project. Though the primary purpose of the appendices is to introduce the user to the book, they function also as an introduction to a basic body of language related knowledge any scientist would be familiar with.

The appendices are followed by a section of basic terms, over 1300 words that are commonly used in all branches of science. These basic terms are presented in 15 clusters: shape, matter, space, existence, constitution, movement, change, time process, knowledge, word analysis, statement, measurement, relationship, and experiment. LDSU thus speaks to one of the basic needs of ESP - a thorough treatment of subtechnical vocabulary. This has been one of the earliest identified problems for the ESP student, one that bears directly on non-native speaker reading problems with scientific literature.

The real value here may not be that the student has a ready reference, but that the teacher has a ready source of subtechnical vocabulary to draw on to teach the concept of shifting meaning. This is a fundamental problem for both reading speed and comprehension, and efforts to date to deal with subtechnical vocabulary have been hampered by a lack of comprehensive sources.

Following the basic terms, there are over 8500 technical terms from the fields of biology, chemistry, and physics. Rather than being divided into three separate sections, however, the terms are presented in sets (e.g. General Taxonomy) according to an overall framework of scientific principles. That terms are not presented alphabetically is a little disorienting at first; there is, however, an alphabetical index that is easy to use and refers one quickly to the place in the book where the term is defined. Entries contain a definition and often a clarifying sentence as well as other information.

Thus, though the book is aimed at non-native speaker science students, it is a quality reference book for the profession. Departmental libraries, materials developers, and ESP teachers should treat LDSU as one of the fundamental reference works of EST.

* * *

WRITING FOR A SPECIFIC PURPOSE

Prentice-Hall has recently released WRITING FOR A SPECIFIC PURPOSE by Sandra McKay and Lisa Rosenthal. The text is a notional approach to teaching writing in the ESL classroom. Units are divided into rhetorical functions, as indicated by unit titles: inform, clarify, classify, analyze, assert, compare, recommend, agree, and predict. The final unit deals with the research paper.

The book is aimed at intermediate and advanced students, and primarily at those who are pursuing academic studies or professional careers. The ESP practitioner would most likely find this book suitable for a heterogeneous EAP class, and less and less suitable as homogeneity of purpose increases. The strength of the book lies in its neatly developed format, one that focuses on getting the student to writing towards a clear objective. Its weakness is in its attempt to appeal to a broad spectrum without adopting a strategy such as parallelism. The dilutive effect of this practice, which seems a rather common publisher's imperative, is now thoroughly familiar to most ESP teachers, and little comment is required other than if the needs analysis fits, the book is worth considering.

* * *

CONCEPTS IN USE

OUP has announced publication of CONCEPTS IN USE, the first book in the four-book Reading and Thinking In English Series. OUP claims on the book jacket: "CONCEPTS IN USE practises the use of a carefully controlled range of basic grammar and vocabulary, and shows how this can be used to present information in short passages. In this way, students can put their elementary knowledge of English to immediate communicative use. The ten units of this book deal with the ways in which basic concepts are expressed in simple English. At the same time, elementary reading strategies are introduced to enable the student with limited English to extract essential information from texts."

* * *

NUCLEUS - MEDICINE

Longman continues to release new titles in its excellent NUCLEUS series. The latest release is MEDICINE by Tony O'Brien (with Jeffrey Jameson and David Kirwan). The book uses the familiar Nucleus format and is integrated so that it can be used in parallel with GENERAL SCIENCE or any of the other books in the series. MEDICINE focuses on developing reading and listening skills, and like the other books comes with separate teacher's notes. The same strengths and weaknesses that apply to the Nucleus series in general apply to this book also.

Though there are many excellent diagrams and drawings integrated into the lesson material, the book will work best if the teacher can bring realia to the classroom. Also, it is not a book for the harried teacher. NUCLEUS in general demands adequate class preparation time for the instructor, and it is to Longman's credit that they will publish a series which assumes enough ELT programs have adopted university workload standards to make a market for these books. As the "reasonable workload" issue gains strength in TESOL, ESP practitioners especially can hope that more publishers will follow Longman's lead in this matter. It is well established that a good ESP class requires considerable teacher preparation, and the considerable number of "ESP" books on the market based on the "overworked, undertrained ESL teacher syndrome" grow increasingly insulting to an increasingly sophisticated profession.

By insisting on the necessity of needs analysis and on the importance of semantics and content in the ELT classroom, ESP has been a vital force in raising professional standards. Publishers with an interest in publishing ESP books would do well to seriously review MEDICINE and the other Nucleus books with an eye to this attribute - that the persons adopting Nucleus are trained, experienced instructors working in professional environments. It is likely to be an increasingly profitable assumption during the 80's.

* * *

ENGLISH BUSINESS LETTERS

A review by Marjorie Morray

F.W. King and Dr. Ann Cree's *English Business Letters: Commercial Correspondence for Foreign Students* (revised by David O'Gorman), Longman, is a veritable compendium of all one needs to know about writing business letters. After a detailed, thoroughly illustrated treatment of optional formats for different kinds of commercial correspondence, it presents an exhaustive description of the types of business letter. These include letters of inquiry; packing and dispatch; invoicing, accounting and settlements of accounts; shipping and forwarding; banking and payments in foreign trade; insurance and complaints and responses to complaints; agency correspondence; telegram format and content; and letter types especially pertinent to the responsibilities of the private secretary.

Each chapter deals with one type of correspondence. It employs the following format: 1) characteristics of the kind of letter to be considered; 2) information that needs to be included in this type of correspondence; 3) formulaic phrases and sentences commonly used as openers; 4) examples dealing with a variety of situations within the context of such letters; 5) phrases or sentences commonly used in the body; 6) an extensive vocabulary list; and 7) exercises which combine fill-in-blank items with letter-writing problems based on cases.

The virtues of *English Business Letters* are numerous. It is detailed and thorough in its treatment of the wide variety of letter-types presented. Moreover, it is a valuable tool for the non-native speaker in that it reduces the risk of miscommunication through its models and lists of frequently-used terms and formulas.

However, the fact that it is written for learners of British English constitutes a problem for English for Business and Economics instructors in the United States. There are differences in business-letter conventions between England and America, one example of which is the placement of the reference (the initials of the signer and those of the secretary). The British place it in the space above the forwarding address rather than below the signature against the left margin, which is the characteristic location employed in the United States. Another example of differences in convention is "Yours faithfully," a complimentary close commonly used in England but not here.

Nevertheless, as the book states, "The fact of the matter is that similarities are more striking than the differences, and the differences between British and American English in general are fewer and less important now that they were, say fifteen or twenty years ago." (p. 8). This is a valid statement. Differences between British and American English and conventions in correspondence should not discourage instructors in the United States from employing *English Business Letters* in E.B.E. classes. The preparation of an American edition of the text, however, would be a significant contribution to the field of English for Specific Purposes.

* * *

STUDY ENGLISH FOR SCIENCE

Longman has released the third of the Bolitho and Sandler "English for Science" books. The three books in the series are START ENGLISH FOR SCIENCE, LEARN ENGLISH FOR SCIENCE, and STUDY ENGLISH FOR SCIENCE. The three books are intended to be a complete course for students who need English to read and understand scientific and technical material. Alternatively, independent use at appropriate levels is also possible, and there is a separate Teacher's Book for each text.

The third book, STUDY ENGLISH FOR SCIENCE, is intended to advance the student to a level from which he can approach real reading and writing tasks in English in his specific subject. Lesson content is taken from non-specialized fields of science and technology, but with language only slightly controlled and leading into authentic materials by the end of the book. Skills such as dictionary use and note-taking are part of the lessons. The book is intended for use at intermediate level.

◆

LEXDEN PAPERS

The LEXDEN PAPERS I is a collection of ten essays on teaching ESP written by the staff of the Colchester English Study Center. The aim of these essays is to pass on to the profession solutions to practical problems in teaching ESP which CESC staff find especially valuable. It is a record of actual classroom experiences in terms of tasks taken on and methods employed to accomplish the tasks. It is available from: Lexden Centre (Oxford) Ltd., 19 Lexden Road, Colchester, Essex, England.

◆

THE LANGUAGE OF BASIC ECONOMICS

Written by Janine Gallais-Hammond and published in Paris in 1979 by Dunod, the book covers the following subjects: the consumer, the firm, the aggregate economy, the government, money, inflation, employment, growth, development, international economics and welfare. The format is one of readings, vocabulary lists, and language manipulation exercises. The readings seem to be authentic texts taken from various sources. For U.S. programs, the book appears most suitable as a supplementary reader at the advanced level.

SPIN, INC.

SPIN, INC. has forwarded two back issues of SCIENTIFIC AND ENGINEERING ENGLISH, both of which appear useful for a very specific audience: those engaged in Japanese-English scientific translation. Texts are in both langauges with the exercises in English. SPIN can be contacted at: 43-6, 1-chome, Kamatakada, Nakano-ku,
Tokyo, Japan.

◆

POSITION OPENINGS

TRANSLEX International, Inc. announces that EFL teaching positions are open with its centers in several countries. These include Mexico, Costa Rica, Venzuela, Ecuador, and Peru. ESP is an integral part of the Translex curriculum. Those interested should contact the Translex office at 1955 Pauline Plaza, Ann Arbor, Michigan 48103, USA.

◆

CHILE

The continuing research into EST at the University of Chile has resulted in the publication of SIGNIFICANT DIFFICULTIES FOR SPANISH SPEAKING STUDENTS READING SCIENTIFIC WRITINGS IN ENGLISH: RELATIVE CLAUSES IN E.S.T. -- AN ASSESSMENT OF DIFFICULTY, by Maria Horsella V. and Gerda Sindermann A. It is published by the university's Faculty of Physical and Mathematical Sciences, Department of Humanistic Studies.

It is the type of basic research that was made a goal of the Newsletter to encourage during Year 4. The report cites an area of difficulty, narrows it down and treats the problem in terms of methods, results, and conclusions. The systematic building of a corpus of literature is a next logical step in consolidating the discoveries about the use of language in science and technology that have so far been made. That the staff at the University of Chile has for some time been engaged in this kind of research reflects with great credit on both the department and the institution.

◆◆◆

■■ NEW JOURNAL ■■

APPLIED LINGUISTICS is concerned with the relationship between theory and practice, and this journal covers work which applies the results of theoretical studies to practical problems. Its aim is to promote a principled approach to language education and other language-related concerns by encouraging inquiry into the relationship between theoretical and practical studies.

Articles are welcomed in such areas as first and second language learning and teaching, bilingualism and bilingual education, discourse analysis, language teaching methodology, language planning, language testing, interlanguage studies, translation, stylistics and lexicography.

With reviews also of books in these fields, the journal is of central interest to all who seek a clear and informed understanding of how applied linguistics acts as a mediating area of inquiry between the theoretical and practical domains of language study.

Contributions (4 copies) may be sent to any of the journal's three editors.

Edited by:

J.P.B. Allen
Modern Language Centre
The Ontario Institute for
Studies in Education

Bernard Spolsky
Department of Linguistics
University of New Mexico

H.G. Widdowson
Department of English
as a Foregin Language
University of London
Institute of Education

* * *

PH. D. THESIS ABSTRACT: ALI H.S. HAJJAJ, UNIVERSITY OF LANCASTER

(Not available from the Clearinghouse)

Thesis Title: The Nature and Understanding of the Term "Function" and its Application to English for Special Purposes with reference to Physics Texts used in Kuwait University.

THESIS.....

This thesis attempts to investigate the nature of the term 'function' with the aim of applying the findings to the teaching and learning of English for Special Purposes (ESP). Chapter One is concerned with an introductory discussion of the term, and Chapter Two examines how it has been treated in a variety of theoretical studies: philosophical, discoursal, ethnograpic, sociolinguistic, psycholinguistic, and linguistic. In the latter case, the main emphasis is on intersentential relations, rather than on sentences as discrete units. This examination results in suggesting a set of 'needs-to-know' which should be taken into account when defining what we mean by 'function' of language and its understanding in communication.

In Chapter Three, I take the 'needs-to-know' as criteria for evaluating what I call 'Functional Interpretation Models' in which 'function' is examined from different angles: sequencing, categorizing, and role. The evaluation of these models leads to the identification of 'etic', or general functions, and 'emic' or specific functions, as well as the differentiation between 'rhetorical' and 'organizational' functions.

Chapter Four is concerned with a critical review of some well-known ESP pedagogical research and classroom application. This review confirms the above findings; in particular the importance of taking a wide perspective if the definition of the nature of 'function' is to be of a particular value in language teaching and learning. The ESP review, further, emphasizes the need for taking 'authentic' data not only for the preparation of functional models but also for their application to teaching and learning.

The insights gained from the theoretical studies, functional interpretation models, pedagogical research, and classroom application guide the 'functional' analysis conducted on physics texts in Chapter Five. The analysis leads to the formulation of a tentative model of the functions of language, as realized in the physics texts. The model is a 'pragmatic' one; that is, it is concerned with the interpretation of discourse in such a way that the 'prominent' functions are identified, and their interrelationships are made explicit.

In Chapter Six, I attempt to suggest how the model can be applied to the teaching and learning of reading comprehension in an ESP situation. The situation considered is that of Kuwait University students who intend to read physics through the medium of English. In this Chapter, I also give suggestions for the selection and grading of the reading comprehension materials to be used.

Chapter Seven sums up the main decisions, criteria, and conclusions of the thesis. It also gives some of what I think to be its main limitations. (June, 1979.)

ENGLISH LANGUAGE RESEARCH JOURNAL

A new journal is being planned which is to be particularly concerned with teaching, learning and research in the field of English for Specific Purposes (ESP). The term ESP will be interpreted broadly so that a large number of practical and theoretical areas can be covered, which will be of interest to those involved in ESP.

Topics will include analysis of spoken and written discourse, computer text analysis, stylistics, study skills, and syllabus/materials design.

The first issue will be published in Autumn 1980. and the Journal will appear annually thereafter. Articles accepted for the first issue cover topics on programme design, specification of needs, analysis of written discourse, self-directed learning and integrative testing.

Contributions in the form of articles, reviews, research reports, and news items are invited. Further details may obtained from:

Chris Kennedy,
English Language Research
University of Birmingham,
B15 2TT
England

COURSE DESCRIPTION

HSS 498C (Special Topics)

SEMINAR IN TEACHING ENGLISH FOR SPECIFIC PURPOSES

During Spring Quarter 1980, Professor Louis Trimble, who in June concluded his career of teaching and research at the University of Washington, offered a special seminar for teachers and prospective teachers of ESL:

The Course addressed the preparation of teaching materials for classes in English for Specific Purposes (ESP), with emphasis on English for Science and Technology, and for Business and Economics. The types of classes considered ranged from formal classes in English for Academic Purposes offered in schools, colleges, and universities to technical-vocational and on-the-job training classes -- English for Occupational Purposes. Classes in "survival English," however, or for students having had no formal exposure to the language were not considered.

Through lecture-discussion and demonstration, the course covered the following subjects:

1. The nature of ESP classes (from heterogeneous to homogeneous) and "Needs Analysis" of students.
2. Approaches to preparing ESP materials for different types of classes and different student needs.
3. The concepts of "parallelism," "discourse orientation," "individualization," and "simulation" in the ESP class.

3RD EUROPEAN SYMPOSIUM ON LSP (LANGUAGE FOR SPECIAL PURPOSES) -- COPENHAGEN, 1981

The theme of the symposium with be 'PRAGMATICS and LSP', including LSP and Communication, LSP and Speech Acts, LSP and Text Typology, and Pragmatic Aspects of LSP/Translation, LSP/Interpreting, LSP/Terminology and LSP/Didactics.

The organizers are Fagsprogligt Center (LSP Center); AILA LSO Commission; UNESCO ALSED LSP Network. The symposium will take place on August 17, 18, and 19, 1981 at the Copenhagen School of Economics. The preliminary registration is July 1, 1980 and the final registration and submission of project title of paper is November 15, 1980. Abstracts are due March 1, 1981 and the acceptance of papers will be on June 1, 1981.

Languages involved will be English, French and German. The fees are yet to be announced.

Information and registration forms can be obtained from: The ORGANIZING COMMITTEE of the 3rd EUROPEAN SYMPOSIUM on LSP, FAGSPROGLIGT CENTER, COPENHAGEN SCHOOL OF ECONOMICS, 7 Fabrikvej, DK-2000; F COPENHAGEN, DENMARK.

bibliography...

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Adams-Smith, Diana E. Cooperative Teaching: Bridging the Gap Between E and SP. Al Manakh, 1978. Vol. 2, #2. 62¢

__________________. Half-Hardy Annuals: Problems in Transplanting some ESP Materials in Medical Sciences. ESPMENA 13. 45¢

__________________. How to Locate Information Using Medical Journals. 65¢

__________________. The Acquisition of Technical Vocabulary. Al Manakh, December, 1978. 50¢

__________________. The English Language Needs of Paramedical Hospital Staff. Al Manakh, May, 1979. Vol. 3, #2. 40¢

Bernbrock, Chris W. Linking ESL/EFL Classes with Cognate Courses: The Adjunct Concept in English for Academic Purposes.

Elliman, Jonathon. Report on the "English for Science and Technology". Teacher Training Institute, Corvallis, Oregon, 1979. $1.00

Gallais-Homonno, Janine. The Characteristics of English for Economists. 90¢

____________________. Les Emprunts Reciproques de la Langue Specialisee et de la Langue Commune. 60¢

____________________. Un Programme D'Analyse Automatique des Textes. $1.00

Todd Trimble, Mary. A Partially Annotated Bibliography of EST Textbooks. 50¢

________________. A Short List of Scientific Dictionaries. 20¢

________________. Grammars and Grammar Textbooks. (bibliography). 25¢

________________. Publishers of Books Interesting to EST Teachers. 25¢

________________. Useful Books for (ESP) Teachers. 20¢

van Naerssen, Margaret; Diana Adams-Smith, Elaine Anderson, and Karen Kale. Bibliography of English for Special Purposes - Medicine. 60¢

ISSUES 39 AND 40
JUNE AND JULY, 1980

english for
specific purposes

☆COMBINED ISSUE☆

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ESP AT THE CROSSROADS: SOME POINTS CONSIDERED

By Philip King, Universidad Del Valle

The issues raised by Tom Hutchinson and Alan Waters in their article *ESP at the Crossroads* (English for Specific Purposes, March 1980) seem extremely important and should make all ESP practitioners reflect. At the same time as they represent the view from Britain, the issues raised in the theoretical and practical arguments and in the conclusions have a worldwide relevance. However, the relationships between some of the arguments and their conclusions seem to me unclear, and a possible source of confusion in the already complex world of ESP.

In section 2.2 (Language of target competence), the argument is that the language of technical education is everyday rather than specific to technical communication, and that many expressions are easy for the native speaker to understand and memorise because words like *saddle*, *play*, *chip*, etc are already known, & words such as *screw*, *fuse* and *valve*, while technical, represent objects from our everyday experience. But native speakers apparently do find difficulty with these extensions of everyday words in some cases. Johnstone and Cassels (1978), investigating the performance of secondary school pupils in science exams, found that the substitution of the form "melted compound" in place of "fused compound" in an otherwise identical exam question improved the correct response from 51% to 62%. Other words reported as causing problems were *pungent*, *converse* and *diversity*, all of which have a non-technical sense. Purely technical words, such as *isotope*, caused fewer problems. Admittedly this is in the area of secondary science rather than post-secondary technical, but it seems enough to show that the a priori assumption of effortlessness on the part of the native speaker ("easily understood", "simply extending") may be an oversimplification.

In any case, it is difficult to see that this argument wholly supports the implications for ELT (section 2.5). While one would accept the proposition that native speakers come across the everyday sense first and then extend into the technical sense, this may well not be the case for non-native speakers, who may not be familiar with *grip* or *drag* before meeting them in a technical sense, and will not therefore have an "everyday English peg" on which to hang the new sense. From my own experience of foreign-language learning, it can cut both ways. It seems less confusing to arrive at the technical Spanish term discurso (= discourse, in the linguistic sense) via the English than it does via the primary everyday association in Spanish, which is "political speech".

In section 2.5 it seems that even if we accept the point about an underlying competence which is not subject-specific, the conclusions are not entailed by the previous argument. In particular, the opening sentence of this section, "it must be obvious from this brief sketch that there is no justification for subject-specific ESP materials" raises problems, as well as eyebrows. Since the article has a double focus - a "review of the present state of ESP" and the more particular investigation of one situation, "communication in the British technical college" - I am not clear how generally the remark is intended. If it relates to the more general point, I am not sure what non-subject-specific course would be more beneficial to air-traffic controllers, for example. If it is the more particular case, then the acceptance of an underlying competence merely seems to remove the necessity for a course to be subject-specific, and presumably the underlying competence would serve and benefit just as well on a course that was subject-specific as on one that was not. In other words, the argument here is essentially to consider non-subject-specific courses as being justified, but this does not entail that subject-specific courses are thereby not justified. The justification for subject-specific courses, other things being equal, might be (i) that reinforcement or whatever of the "few examples of terminology" that are subject-specific might be a worthwhile gain, or (ii) that we can refine the notion of underlying competence to propose that the competence peaks, or has a special propensity in the direction of one's specialist interest. Something of the sort may be what is hinted at in section 1.4, where the authors suggest that the expert in fluid mechanics may well be able to interpret the gist of a discussion on fluid mechanics in language X, of which he may know next to nothing. Conceivably, he may be that much more able and/or willing to participate in language X activities that relate to fluid mechanics rather than to anything else. It seems far more likely that the constraints on being subject-specific are practical rather than theoretical; that in fact as suggested in sections 1.4 and 4.2, the inability of the EST teacher to cope with full-blown S and T, or the impossibility of designing and running a range of courses for the sake of a few non-native practitioners in each of many specialist areas, are far more cogent reasons for non-subject-specific courses.

The second paragraph of 2.5 states "the use of self-sufficient written texts to exemplify technical discourse is misplaced, since the precise forms and language use of this medium are not representative of the greater part of technical communication". I take "the use of self-sufficient written texts" to mean reliance on written texts alone, without any other input to the course. In this sense, the conclusion stands. In any other sense (e.g. texts which do not relate to other parts of the course, texts which are self-contained with a clear beginning and end and not too much reference to other parts of the book from which they are extracted), one runs into problems in trying to follow the line of reasoning.

This should not be viewed as carping. Indeed, I am in agreement with the authors' basic position. The point which is at stake is this: the authors recognise that the questions they raise "strike at the heart" of much current ESP practice; but they are intended (section 5) to help alleviate the problem. It seems reasonable therefore to scrutinise the proposals and arguments very carefully, especially given (i) the complex and to many people confusing state of the art and the multitude of competing claims and conflicting practices, and (ii) the certainty that pressure of space has prevented the fuller development and clarification of some of these points.

REFERENCE: Johnstone & Cassels: What's in a Word?
New Scientist, 18 May 1978, pp.432-4.

ANNOUNCEMENT OF THE 1981 TESOL CONFERENCE

The 15th annual conference of TESOL (Teachers of English to Speakers of Other Languages) will be held at the Renaissance Center in Detroit, Michigan March 3-8, 1981. Members and friends of TESOL are invited to participate by making a presentation and/or attending. Proposals for presentations are solicited from all people (teachers, teachers-in-preparation, graduate students, researchers) who have fresh insights to communicate to the profession or who have tried-and-true approaches to share.

The call for participation is being printed in full in the June issues of the TESOL Quarterly and the TESOL Newsletter, and the deadline for submission of proposals is September 1, 1980. If these publications are unavailable, a copy of the call may be obtained by writing to:

Mary Hines
Program Chairperson, TESOL '81
Box 960
Teachers College,
Columbia University
New York, New York 10027

Proposals are encouraged that deal with research, classroom practices, and/or interconnections between the two, at any of the different levels of education (elementary, secondary, higher, adult) and in any of the diverse settings (bilingual, EFL in English-speaking countries, EFL in non-English-speaking countries, English as a second dialect).

Full details on registration procedures will be available after December 1, 1980 from the:

TESOL Central Office
202 D.C. Transit Building
Georgetown University
Washington, D.C. 20057

REPORT ON THE ROMANIAN NATIONAL SYMPOSIUM

The following are titles of some relevant papers delivered at the National Romanian Symposium entitled "Foreign Language Teaching and it Contribution to Enriching Special Knowledge to Technical Students":

1. Semiotic and Didactic Implications of Scientific and Technical Discourse. (Professor dr. Paul Miclau, Bucharest University).
2. Criteria to Produce Syllabuses for ESP. (dr. Adrian Nicolescu, Bucharest University).
3. How to Approach Technical Issues in the Foreign Language Seminar. Some Methodological Implications. (dr. Silvia Burdea, Bucharest Civil Engineering Institute).
4. Science and Technology - Sources of Lexical Creativeness. (lecturer Lili Chirvai and col., Cluj Napoca Polytechnical Institute).
5. The Objectivity of Scientific Communication. (university assistant Monica Ioani, Cluj Napoca Polytechnical Institute).

No less than 46 papers were delivered, and they covered many aspects of foreign language teaching to technical students, including; pronunciation, morphology, syntax, semantics, methodology, audio-visual aids, etc.

The Symposium was held in Bucharest in mid June, this year.

Nicolae Bejan
University of Galati-Romania

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VESL EXCHANGE

VESL MATERIALS DEVELOPMENT

Vocational specific ESL curriculum and materials development is in a somewhat disorganized state. Being a relatively new area of ESP, there are isolated pockets of people doing work in the United States as well as elsewhere. Materials developers have few curriculum models to draw from and for the most part are not aware of each other's efforts. The following is an attempt to draw some generalizations from the curriculum efforts that I am aware of, most of them in the western United States. My comments are based on discussions with the authors and samples of their materials.

There seem to be at lease three approaches being employed: grammatical, functional, and simplification of content.

Grammatically Based VESL

A grammatically based curriculum plugs vocational vocabulary into a standard grammatical syllabus. Instead of teaching "It's a book" or "I'm sleeping"; one would teach "It's a hammer" or "I'm taking out the engine".

Some of the first ESL materials specific to an occupation to appear in the United States were the Center for Applied Linguistics' modules. In addition to a prevocational module they prepared beginning level modules in auto mechanics, clerical occupations, and food services. Vocational vocabulary is used in grammatically controlled and sequenced structures, keyed to a standard ESL textbook--English for the Twenty-First Century, (ModuLearn Inc.).

Functional/Vocational Based VESL

In vocationally based language materials the language taught is determined entirely by the needs of the vocation with little concern for grammatical development. If students need to ask for tools or explain problems to customers, they are taught strategies for doing that irrespective of any sequence of grammatical structures. These materials involve a strong needs analysis to determine precisely what should be taught and what can be left out. In the materials reviewed here, there is a heavy emphasis on speaking and listening but little reading or writing. While in their organization the modules are based on the functional/notional approach, the teaching materials reflect an array of instruction methodologies.

West, Thomas and Thaxton, and Feuille have developed materials that illustrate this approach. West has written instructional modules for welding and upholstry. The materials, which are highly visual including flash cards, emphasize the terminology of each trade used in a vocational context which is derived from an analysis of the language functions welders and upholsterers must engage in. Thomas and Thaxton have prepared electronics assembly and welding units which teach the necessary vocabulary and language functions. The units have a variety of activities ranging from dyads to Total Physical Response exercises and include slides and tapes.

The auto body repair module by Feuille is similiar to the above modules but also includes some tool function and problem solving exercises. In the latter students are asked to explain what they would do to fix a particular dent. In contrast to the emphasis on vocabulary in the preceeding units, Feuille's business telephone usage module stresses language functions, i.e. identifying oneself, transferring a call, offering to take a message.

The Center for Applied Linguistics has also been developing some intermediate level modules which employ the functional approach. In none of the above units is particular attention paid to sequencing or teaching grammatical strutures.

Separate electronic assembly units by Wilkinson and Latkiewicz appear to be an amalgam of the grammatical and vocational approaches. What is taught in both cases is determined by an analysis of the vocational language needs leaving large gaps in the grammatical sequence; however when a relevant grammatical point is hit upon, it is exploited. For example, Wilkinson has her students drill should and shouldn't in the context of inspecting wire splices.

Simplifying Vocational Content

Welding and machine shop materials prepared by Grover focus on the vocational content, breaking the course down into briefer segments of information presented in linguistically simpler formats. The emphasis is on the student learning the content of the course. Grover has prepared readings and tapes that cover the course content in simplified English. A series of VESL units being developed at vocational/technical centers in Minnesota also are content oriented. The machine shop unit covers basic spatial concepts, the operation of key machines, and so on.

While a grammatically based curriculum focuses on developing total language ability through a vocational context, functionally based curriculum concentrates on the langauge that is essential to success in that occupation. Finally, curriculum developers who simplify vocational content are most concerned with the limited English speaking student grasp of that content.

RESOURCES

While all these units are experimental and are not likely to be available for distribution, further information is available from the following:

The Center for Applied Linguistics, 3520 Prospect St. NW, Washington, D.C. 20007 (new address)

Feuille, Carolyn. Valley Vocational Center -- Willow Campus, 320 N. Willow, La Puente, CA. 91744

Grover, Dorothy. Indochinese Program, Clark College, 1800 E. McLoughlin Blvd. Vancouver WA. 98663.

Latkiewicza, John. Utah Technical College Skills Center, 431 South Sixth East, Salt Lake City, UT. 84102

Minnesota materials contact Lynda Bull, State Department of Education, 550 Cedar St, St. Paul, MN. 55101

Thomas, Tony and Karen Thaxton. Educational Cultural Complex, 4343 Ocean View Blvd. San Diego, CA. 92113

West, Linda. Valley Vocational Center--Willow Campus, 320 N. Willow, La Puente, CA. 91744

Wilkinson, Betty. Indochinese Bilingual Electronics Program, John O'Connell C.C.C. 1311 Sutter, San Francisco, CA.

THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY

LECTURER IN ENGLISH LANGUAGE

The Department of Language and Social Science wishes to appoint a Lecturer in English Language. The Department provides English courses for undergraduates whose professional fields include engineering, architecture, chemical technology and business studies and accountancy.

Candidates should have a relevant first degree and postgraduate qualification and experience in teaching English for Special Purposes. Preference will be given to a person with experience in teaching English for Business and Economics. Overseas experience in developing countries is desirable.

Salary: Lecturer II - K14,660 per annum

Lecturer I - K12,810 per annu,

K1 = US $1.47 approx.

Other benefits include a gratuity equal to 24% of total salary payable either on completion of the contract period or by five installments during a three year contract, salary indexation, appointment and repatriation fares for the staff member and his family, settling in and settling out allowances on appointment and repatriation, six weeks paid leave per year, leave fares for staff member and his family once in three year contract, assistance towards school fees, education fares for children being educated outside Papua New Guinea and free housing. Salary continuation and medical benefit schemes are available.

Applications in duplicate should include particulars of age, nationality, marital status, family, if any, qualifications (including certified documents), experience, present post and the names of addresses of three referees from whom confidential enquires may be made.

Applications should be sent to:

The Registrar
The Papua New Guinea University of Technology
P.O. Box 793
LAE, PAPUA NEW GUINEA.

An additional copy of the application should be sent to:

A. C. U. Apointments
36 Gordon Square
LONDON, WC1H OPE

ENGLISH LANGUAGE TEACHING DEVELOPMENT UNIT

The English Language Teaching Development Unit has two principal functions; the provision of materials development services; and the publication of English for Specific Purposes titles.

ELTDU was established in 1969 by the Oxford University Press in order to offer a materials development service to overseas customers in addition to their range of published teaching material; and the Unit remained a part of the OUP until 1978. Its primary activity was to research and develop teaching material that was tailor-made to meet the specific requirements of individual customers. Development services during this period were commissioned by:

Atlas Copco AB, Sweden; BBC; The British Council; Cornelsen-Velhagen & Klasing, Germany; L. M. Ericsson AB, Sweden; EssoChem Europe Inc, Belgium; Ford of Germany; German Adult Education Authority; Pakistani International Airlines; SKF, Sweden;

Pakistani international Airlines; SKF, Sweden; the Swedish Ministry of Education.

Published materials resulting from ELTDU's work during this period include:

English for Business	OUP (1973)
State Your Case	OUP (1976)
English for Secretaries	OUP (1978)
Basic English for Science	OUP (1978)

English 'G', a secondary course for German schools CVK, Berlin (1972-78)

In 1978 ELTDU was established as a separate limited company with the support and approval of the Oxford University Press. The Unit continues to offer a specialised materials development service; and also acts as an independent publisher of English Language teaching material. The publishing stems naturally from the development work, and ELTDU titles are designed primarily for the adult learner of English who needs to learn the language for reasons related to his or her job.

Titles published by ELTDU include:

The Case of Harkwood Ltd. -

a course in English for accountants, bankers, and financial managers

Assignment Mornesia -

a course in English for diplomats and personnel employed by international agencies or involved in international negotiations

English in Flight -

a course in English for air hostesses

The Crisis Series -

a series of problem-solving assignments for engineers, technical managers, and senior technical staff

The Visit -

a course in social English for businessmen or professional people who travel overseas in the course of their work

Repair Kits -

a series of remedial grammar modules designed for self-access work for use with teacher-led groups

Materials which ELTDU are currently developing for various customers include:

* a complete course for German vocational schools
* a complete language laboratory course for German secondary schools
* an elementary course for Swedish telecommunications engineers
* a course in proposal writing for German managers
* a complete beginners' course for Spanish primary schools

In addition to developing teaching material for adult learners and for school children, ELTDU has also been involved for many years with the problems of assessing and testing language performance. The ELTDU Stages of Attainment Scale and Test Battery, which defines eight stages of job-related language competence, has been singled out by a recent Council of Europe report as "a very useful model for organisers of custom-built vocational courses." The Scale contains two linked specifications; one designed for administrators to enable them to assess job requirements; the other designed for the language teacher containing detailed language specifications on which teaching and langauge assessment can be based.

Both the Scale and Test Battery and the teaching material reflect ELTDU's belief that language training will only be effective where the learner's needs have been analysed at the outset and the teaching material selected and designed accordingly.

All enquiries about either ELTDU'd development services or about published titles should be sent direct to:

ELTDU
23 Market Square,
BICESTER,
Oxfordshire,
England.
OX6 7BR

Telephone:

Bicester (08962) 45255

Telex:

83147 via OR.G ref. ELTDU

EDITOR'S NOTE: This article is reprinted from "Language Training", a very good quarterly published by LTC Professional Language Services, 26-32 Oxford St. London W1A 4DY, England. £1.50 per copy (overseas). ESP practitioners will find it worthwhile.

LANGUAGE TRAINING ON A LARGE SCALE — THE CASE OF FORD GERMANY

The big German and French multi-national companies have language programmes that are bigger than many education institutes. Sometimes the courses offered are on a voluntary basis, in other cases they are more job-related. The programme at Ford in Germany is of the second type, and is probably one of the most extensive in Europe. The description of the programme in this article is based on a discussion with two members of the General Education Institute at Ford, Dr. B. Ritterhaus and Mr. R. Reinhold.

The language programme at Ford Germany in Cologne is on a very large scale. The company employes about 35000 people, of whom about 8500 have salaried positions for which knowledge of English is often necessary. At any one time, up to 2000 people receive language training, the majority learning English. Most courses are extensive (1 1/2 hours per week) and most of the training takes place within the company and within work hours. The progress of all employees is carefully monitored, and related to an overall scale of attainment based on job needs. As the organisation of such a large course is very complex, it is better to break it down into different stages for the purpose of description.

BEFORE THE COURSE

The initiative for training may come from an individual's manager or department head, or from the individual himself. In either case it will have been felt that job performance now or in the future is affected by language ability and that something needs to be done to remedy this. This basic need, or wish for a course is communicated to the training adviser for the department. This person is the link between the department and the company's training division, and his job is to co-ordinate the demands or needs for training at an early stage so that the training division is not overwhelmed by applications.

Once a person has requested training, a full language audit procedure ('Language Training' Vol 1 Issue 2) comes into operation to analyse needs, determine objectives, assess present ability level and decide on a suitable course. The first stage in this process is for the applicant to fill out a questionnaire (written in German) to reveal more about his job, use of English in that job, previous English learning experience and availability for training. The particular language skills he might require are shown in the accompanying extract from the questionnaire (Fig.1). From the information on this questionnaire a target level or objective is determined.

The second stage is that of testing to assess present langauge ability. Ford uses the test battery developed by ELTDU (English Language Teaching Development Unit), as described in the last issue of 'Language Training', although they supplement this with their own tests, especially for people with very little knowledge of English. All instructions are in German. Because of time and organisation factors, only reading, writing and listening skills are tested which enables the test to be administered to groups of people at a time. To test each individual's speaking ability would be an impossible task, claims Ford.

THE ENGLISH COURSES AT FORD

Unlike some large companines, Ford does not timetable it's various courses to begin and end on set dates as in a school or an adult education institute. They have a series of standard type courses, and a course only runs when there are enough people to form an adequate group (usually 12 - 15 people at lower levels, 8 - 10 at higher levels). This means that people have to wait, unless they can be fitted into another course already in progress as an interim measure.

The full range of courses offered by Ford is best illustrated by the chart which they themselves produce (Fig 2). Naturally enough there is a heavy bias towards technical English, as a lot of production and design engineers are included. However, there is also a good deal of emphasis on commercial and business courses. Most of the material used for the teaching is commercially available, although Ford has also commissioned a lot of material specifically for their own purposes, particularly for the technical English common to the motor industry.

The commercial teaching material is supplemented by that developed by Ford and applicable to the Ford situation, giving examples of typical Ford language including ways of writing reports, memos and telexes etc. As mentioned earlier all the courses are carefully related to an overall scale of attainment. In Fig 2, the attainment scales is shown down the side of the chart, and refers to levels of ability and performance in the language going from a low level at A to almost native speaker level at H. It will be noticed that Ford does not offer training beyond level G as it is probably not cost effective or even necessary in most cases. The cut-off point between lower level and higher level is Level C on the scale. This corresponds to the 'Threshold Level' as defined by the Council of Europe, (Language Training Vol 1, Issue 2). This means that people who have reached the Threshold Level should have acquired a basic competence in the foreign

FIG. 1

FOREIGN LANGUAGE SKILLS NEEDED:

1. SPEAKING AND LISTENING	VERY OFTEN	OFTEN	RARELY	NEVER
TELEPHONING	☐	☐	☐	☐
TECHNICAL DISCUSSIONS	☐	☐	☐	☐
NEGOTIATIONS	☐	☐	☐	☐
PARTICIPATION AT MEETINGS (KIND:____________)	☐	☐	☐	☐
ORAL REPORTS (KIND:____________)	☐	☐	☐	☐
OTHER:________________________	☐	☐	☐	☐

2. READING	VERY OFTEN	OFTEN	RARELY	NEVER
TELEXES/TELEGRAMMES	☐	☐	☐	☐
INTERNATION COMMUNICATIONS	☐	☐	☐	☐
CORRESPONDENCE (EXTERNAL)	☐	☐	☐	☐
TENDERS, SPECIFICATIONS	☐	☐	☐	☐
SERVICE INSTRUCTIONS, GUIDELINES	☐	☐	☐	☐
TECHNICAL DESCRIPTIONS (KIND:____________)	☐	☐	☐	☐
TECHNICAL LITERATURE	☐	☐	☐	☐
OTHER:________________________	☐	☐	☐	☐

3. WRITING	VERY OFTEN	OFTEN	RARELY	NEVER
TELEXES/TELEGRAMMES	☐	☐	☐	☐
INTERNAL COMMUNICATIONS	☐	☐	☐	☐
CORRESPONDENCE (EXTERNAL)	☐	☐	☐	☐
ORDERS	☐	☐	☐	☐
GUIDELINES (KIND:____________)	☐	☐	☐	☐
REPORTS (KIND:____________)	☐	☐	☐	☐
PRESENTATIONS (KIND:____________)	☐	☐	☐	☐
OTHER:________________________	☐	☐	☐	☐

language. Ford is to be congratulated for their achievement in linking their language programme to the Council of Europe's work on adult language learning, as this will eventually become a standard for measuring progress and performance which will replace such vague terms as 'intermediate', 'working knowledge' etc. Having such a strict scale of attainment is perhaps not necessary in a small company with only a few people undergoing training, but in Ford's case with about 2,000 trainees it is essential to keep a record of everyone's progress.

LENGTH OF COURSES

Most of the courses last 70 - 90 hours and are given once or twice a week for 1 1/2 hours each session. This means that progress is inevitably slow and absences are certain to occur and be detrimental to learning. Balancing these disadvantages is the fact that work is not disrupted to the same extent as it is with full time intensive courses. Usually the training is in groups, although higher management sometimes have individual courses for five hours a week. Almost all the training takes place during working time, either at the company's own training centre or at Ford offices or plant areas spread around Cologne. This loss of working time clearly represents a considerable investment in training by the company. Very few courses take place externally although from time to time urgent or special cases who cannot fit into the programme are sent to private language schools in England or Germany.

THE TRAINING STAFF

Because courses start almost on demand, it is difficult for Ford to predict how many hours of teaching will be required at any one time. Therefore, they prefer to maintain maximum flexibility by using only freelance teachers who live in Cologne. Obviously some of these teachers will work most of the week at Ford, but none of them have the status of full time staff members of the training division. About forty freelance staff are used, and the work of the division, including testing grading, placement in courses etc is co-ordinated by a full time member of the General Education Institute of the training division, with the assistance of an external agency.

CONCLUSIONS

The Ford language programme is probably one of the largest and most highly co-ordinated in Europe. Its success is measured by the fact that 2,000 employees are receiving a large degree of job orientated language training.

What are the main points for consideration arising out of the Ford company's language training experience? Firstly, that a language audit should be carried out on all people who need to receive language training. It is important to know what objectives a person has, what his starting level is and how these two points can be related to a scale of attainment valid throughout the organisation. In this respect the Ford programme is carefully planned.

FORD CONTINUED. . .

Another interesting point is the cycle of the different courses. The fact that they begin on demand offers flexibility compared with the more normal system of running courses at fixed dates in the year, as at IBM (France) or Bayer in Germany. On the other hand, it must give additional organisational headaches, and individuals might have to wait a long time before a course suitable for them to join can be started.

The question to be asked is whether a company should try to handle so many of its training needs internally, as Ford does, rather than settling for a slightly smaller proportion and dealing with other needs on an ad hoc basis. The fact that Ford deliberately built-in some degree of flexibility might not be cost-effective if carefully analysed. These thoughts are, however, the writer's own and there is no evidence from Ford to prove this one way or the other. This need for flexibility means that it is unwise to have a full-time teaching team on the payroll. It is certainly cheaper and more flexible to use only freelance people, but there must be a problem of quality control. Can freelance teachers ever be considered a team? Who is responsible for their own professional development? Would a really accomplished, experienced teacher be content with the insecurity of freelance work? Again these are not meant as criticisms, merely food for thought.

One final word of warning. The Ford programme is uniquely geared to the character of the company -- an American business with a huge need for proficiency in a single language throughout the workforce, from top management down to technician level. They can bring together large numbers of employees with similar needs which obviously facilitates the organisation of courses. Other companies should beware of attempting blindly to follow Ford's example. Their situation may well be totally different -- with a need perhaps for training in five or six languages, at very different levels and for different needs. English companies in particular face this problem. A thorough examination of the nature of each problem is necessary before any solution can be found.

NON-FINITE VERB FORMS IN TECHNICAL ENGLISH LITERATURE

by Francoise Salager, University of the Andes
Graduate School of Medicine
Merida · Venezuela

In a companion article (Salager 1979: ESP Newsletter), the finite verbal forms of Technical literature have been defined. The purpose of the present paper is to determine the non-finite verbal forms of English Technical prose (TE): it is divided into two parts: the first one (Part A) corresponds to the use of gerunds in TE and the second (Part B) to the use of infinitives. Corpus selection and methodology are reported elsewhere (Salager, 1977, Chapter 7).

PART A

GERUNDS OR -ING FORMS

A. Gerunds or "-ing" forms

Many nouns and adjectives are associated with a preposition which complete their meaning and any verb which follows them takes the "-ing" form. The following syntactical relationship may be observed: $N + V_{ing} + X$ where N stands for noun, V_{ing} for the gerund and X for any component. The Technical English (TE) nouns may be grouped according to the semantic sphere they belong to. Three different spheres can be observed:

(a) Nouns which denote ideas or concepts bound to the process of investigation, e.g. "condition for", "concept of", "success in", "purpose of."

- *The purpose of attacking the question...*
- *The condition for using the apparatus...*
- *Serious difficulties were encountered in analizing the satellite spectra...*

(b) Nouns which indicate a process, a mechanism, an operation, e.g.,

- *. . . a centrifugal device for evaporating a number of . . .*

- *Other connections in this are provided for maintaining the required A+ to A- polarity.*

- *This filter is the major factor in determining the band width.*

(c) Abstract nouns with modal connotations such as "possibility of", "difficulty in", "attempt at", "failure in", "necessity of." Some adjectives also trigger the gerund. In these cases the syntactical relationship is:

$$A + V_{-ing} + X$$

where A stands for "adjective". The most frequent ones are: "capable of", "effective in", "useful for", "suitable for", and "active in".

As these examples testify, the recurrent prepositions which trigger the gerunds are "of", "in", "by", "for". These prepositions occur with a much lower frequency in GE (*) than in TE literature and are used in different contexts. In GE "of" mainly indicates possession or belonging, "by" chiefly signals an agent passive which is not the case in TE where passives are agentless. (Ford 1974, Trimble 1978).

In TE, "by" is found in such instances as:

- *. . . the composition of the melt is changed by adding donor and acceptor impurities.*

- *By applying a signal to the N-P-N first limiter...*

- *. . . generates one third of carrier frequency by tripling the fundamental frequency of the transmitter crystal.*

- *By removing the catalizer . . .*

It also serves as a substitute for longer clauses:

- *If (or when) the signal is applied . . .*
- *If (or when) the catalyst is removed . . .*

French would mainly recur to the prepositions quand or si; Spanish would use the construction al followed by an infinitive; Russian prefers to use participial constructions most notably those in which the participle and everything that goes with it precedes the noun it modifies.

Absolute gerunds in English are another example of substitution for long concessive clauses introduced by "as" or "since":

- *Xenon, being an inert gas . . .*
- *All the factors being the same, the temperature influence is determined by . . .*
- *Other factors being held constant . . .*
- *Borosilicate glass melting at about 900°C, special silica glass must be used.*

Thus, gerunds are more frequent in TE than in GE for two reasons:

- the nouns and adjectives associated with a preposition mainly belong to the Fundamental Technical English layer (FTE**, cf. Salager 1977)
- the prepositions which trigger the gerunds occur with a higher frequency in TE than in GE.

* * *

LINKING ESL/EFL CLASSES WITH COGNATE COURSES: THE ADJUNCT CONCEPT IN ENGLISH FOR ACADEMIC PURPOSES

by Chris W. Bernbrock

ABSTRACT

This paper is a case report on an ESL course that was taught at UCLA within an interdisciplinary framework originally developed for teaching academic writing skills to native speakers of English. During the summer of 1979, in a special program designed to help in-coming freshmen make the transition from high school to college, approximately 100 students in an introductory psychology course were divided into five sections for instruction in writing skills related to the Psych course. The ESL section offered an expanded syllabus which also included reading and study skills components, but basically the overall approach was the same for all five sections.

Each section taught five modes or frames of prose that a campus-wide research project suggested were characteristic of academic discourse (i.e. seriation, definition/classification, compare/contrast, syntheses and analysis). For each expository type the students were taught in the adjunct English class, they were given an essay question on a quiz in Psych which required them to use that particular mode of writing. Furthermore, first drafts and revisions of each section of their term papers in Psych were turned in to both the Psych instructor (for content feedback) and the English instructor (for form feedback). In the ESL section, reading and note-taking skills were also taught and applied to the actual textbook used in the Psych course.

The adjunct concept of linking English classes with subject-matter courses is put forward in this paper as a practical way to structure curricula in English for Academic Purposes. It is proposed as a feasible way to offer ESL/EFL classes on the academic home turf of students in different disciplines, such as engineering or management science - a way which may at least partially relieve EAP instructors of the burden of becoming quick-studies in unfamiliar disciplines. The approach also provides a way for teachers in other fields to show their concern and share in the responsibility for the quality of the languae skills of their students.

* * *

WHAT IS THE FEDERAL BILINGUAL VOCATION TRAINING PROGRAM?

Bilingual vocational training projects are made possible through the Vocational Education Act (Title 1, Part B, Subpart 3). This legislation provides Federal dollars to local school districts, State agencies, post-secondary education institutions, private nonprofit vocational training institutions, nonprofit organizations especially created to serve a population group that regularly uses a language other than English, and private for-profit agencies and organizations that wish to set up and provide bilingual vocational training to needy adults.

The money usually goes to pay the salaries of the bilingual instructors, counselors, and aides, and to purchase textbooks, cassettes, and other curriculum materials and supplies. In many cases trainees are paid a weekly allowance based on the current minimum wage to take care of living expenses. Although grantees usually contribute classroom space, project funds occasionally pay for renting facilities where classes can take place.

Federal projects aim to help limited-English-speaking adults either get a job or find a better job. Individuals may need to expand their range of skills to advance in their careers, to achieve year-round employment, or to adjust to changing employment trends. Perhaps a new factory or hospital has recently moved into a community. Or a community may have had a shortage of employees in a particular occupation for some time. Circumstances may vary, but the goal of all projects is to help trainees lead productive lives and at the same time fill the critical need for more trained workers in job areas vital to the Nation's economy.

To date, the projects have been conducted for speakers of Spanish, French, Chinese, Korean, Japanese, Vietnamese, Russian, Chamorro, and several Indian languages. A majority of these --53-- have been for adults with Spanish langauge backgrounds. Numbering some 6.2 million, this group constitutes by far the largest adult foreign language population in the country.

The projects have trained people for a wide variety of occupations--auto mechanics, paraprofessionals in banking and accounting, chefs, carpenters, photo and graphic technicians, clerical workers, nurse and geriatric aides, and many more. Because job placement is a major consideration, projects must carefully consider the employment needs of the community in the design and focus of their programs.

PROJECT EXAMPLES

Thus far, the University of California at Los Angeles has trained students who speak Spanish, Russian, Korean, Japanese, Chinese, and Vietnamese to be dental assistants. They learn through classroom instruction, working in the university's dental clinic, and on-the-job training at private dental offices in the community. At the end of the program students are ready to take the State and national qualifying exams in English.

The China Institute in America has prepared Chinese-speaking persons for professional careers as chefs. The program consists of classroom instruction and field practice at participating restaurants in the New York City area. Trainees intern at a number of restaurants to gain experience working with different types of food and clientele and under several different head chefs. The language instruction stresses survival English as well as vocabulary relating to cuisine, kitchen situations personal hygiene, and other restaurant-related matters. Now in its 5th year of funding through the Office of Education, the Institute's program has placed more than 90 percent of its graduates in chef positions around the country.

To help Spanish-speaking mental patients return to the community as self-sufficient adults, the San Antonio State Hospital in Texas has provided patients with English language instruction and occupational training. Vocational areas have included fast-food service, office and clerical skills, minor auto repair and service station operation, and janitorial and housekeeping. Because trainees are hospital patients undergoing active treatment, both the program approach and length of training are designed to meet the particular needs of each person.

To fill two critical needs of the Pine Ridge Indian Reservation in Kyle, South Dakota, the Little Wound School Board program provided bilingual training in the construction trades and the secretarial field. Carpentry was the major emphasis of the construction program, with some instruction in wiring, masonry, plumbing, and painting. Clerk-typists learned to type in both English and Lakota, the Sioux language, and to translate materials from one language to the other.

For applications and more information about the 1-year Federal bilingual vocational training projects, write to: Dr. Richard H. Naber, Program Manager; BVT - OBEMLA; Reporters Bldg., Rm. 421; 400 Maryland Avenue, S.W.; Washington, D.C. 20202.

CALL FOR PAPERS
NEW ESSAYS IN TECHNICAL WRITING AND COMMUNICATION

Baywood Publishing Company and the Journal of Technical Writing and Communication announce plans for the second volume in the Technical Communication series. New Essays in Technical Writing and Communication will be edited by Paul Anderson (Miami University), John Brockmann (Arizona State University), and Carolyn Miller (North Carolina State University). General editor for the series is Jay R. Gould, editor of the first volume, Directions in Technical Writing and Communication.

The editors are seeking previously unpublished manuscripts that provide new ways of talking about, working with, and teaching technical writing and communication. Manuscripts that would be appropriate include:

*Reports on significant empirical research (sound experimental design and proper use of statistics are essential).

*Analytical surveys of the literaure on important issues in technical writing and communication (in the manner of Tate's Teaching Composition: Ten Bibliographic Essays).

*Critiques of some of the unexamined assumptions that technical communicators make about such things as the nature of science, the nature of language, and the nature of communication.

* Explanations of the application to technical communication of recent work in such fields as speech communication, psychology of reading, sociology, and literary criticism.

*Discussions of the history of technical communication that suggest new prespectives on current issues.

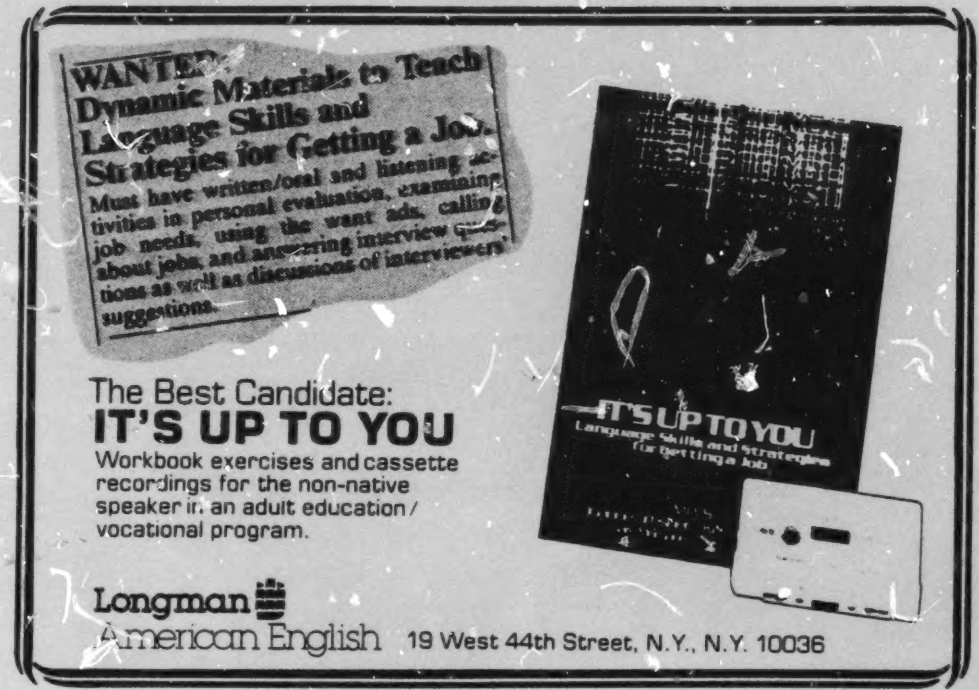
*Other articles that provide new and significant insights into technical communication.

Send inquiries and manuscripts to one of the addresses listed below. Manuscripts should be submitted in triplicate, with the author's name appearing only on a detachable title page. Deadline for submission is November 1, 1980.

Paul Anderson
Dept. of English
Miami University
Oxford, OH. 45056

Carolyn Miller
Department of English
North Carolina State Univ.
Raleigh, North Carolina 27650

John Brockmann
Division of Technology
College of Engineering & Applied. Sci.
Arizona State University
Tempe, AZ 85281



WANTED: Dynamic Materials to Teach Language Skills and Strategies for Getting a Job. Must have written/oral and listening activities in personal evaluation, examining job needs, using the want ads, calling about jobs, and answering interview questions as well as discussions of interviewers' suggestions.

The Best Candidate:
IT'S UP TO YOU
Workbook exercises and cassette recordings for the non-native speaker in an adult education/vocational program.

Longman
American English 19 West 44th Street, N.Y., N.Y. 10036

POSITIONS AVAILABLE

Saudi Arabian Airlines currently has two vacant Curriculum Development Specialist positions, one in Business/Accounting and one in Aviation Science. Candidates should have a Master's degree in a related field and five years experience in teaching and curriculum writing for non-native English speakers. For both positions previous airline experience is preferred. For Aviation Science a private pilot's license and/or a radio license would be a plus.

North American contractors could expect a starting salary of approximately $28,000 (paid in Saudi Riyals), with annual merit and seniority increases. 30 days vacation and 9 holidays a year, free furnished accomodation, annual home leave transportation, and airline flight privileges complete the benefits package.

Resumes should be directed to: Staff Manager, Trainee Program Development, P.O. Box 167, CC 455, Jeddah, Saudi Arabia.

FROM THE EDITOR

This double issue of the Newsletter is intended to solve some of the summer schedule problems that come up this time year. We will return to our regular monthly format with the beginning of the new academic year. The change is due primarily to accommodate vacations and other summer disruptions to the normal routine.

VIDEOTAPE AVAILABLE

Longman Publishers has provided the Clearinghouse with a videotape featuring Martin Bates and Tony Dudley-Evans. It is a 60 minute teacher training film on the use of the NUCLEUS series. It is in color and extremely well done. The tape is on 3/4 inch cassette. Those wishing to view to tape may do so by contacting the Clearinghouse. We will mail the tape to you with an invoice to cover postage and handling. We cannot mail the tape to non-US addresses, however.

August, 1980
ISSUE 42

English for Specific Purposes

KARL DROBNIC, EDITOR
LYNNE STINNETT, PRODUCTION
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CROSS CURRENTS

Cross Currents, a biannual journal for classroom teachers published by the Language Institute of Japan, includes practical articles concerned with ESL/EFL classroom methods, language curriculum design and materials, and other areas related to improving international communication. Now available, our most recent issue, Vol. VII No. 1, calls attention to the importance of affective factors in the language classroom and their influence on classroom learning, explores the problems and creative uses of audio-visual language laboratories, and offers practical suggestions for the use of Story Squares, ad-libbed dialogues, and teaching technical writing.

The first three articles, "The Missing Element in Foreign Language Communication: Self-Disclosure" by Gertrude Moskowitz, "Seven Clocks: Their Ailments and Their Realignment" by Paul La Forge, and "Student Invested Material: Structuring Activities" by Kathleen Graves, point out the importance of using activities that foster personal development of students and do not rely on using textbooks.

The next two articles, "Video Studios: The Language Labs for the 1980's" by Suzanne Griffin and "What's Wrong with Language Labs" by Richard Showstack, examine some of the reasons students are dissatisfied with language laboratories and audio lab classes and offer creative suggestions for improvement.

Our next author, Emiko Kitagawa, a high school teacher in Japan, presents a different way of teaching the subjunctive by applying the Silent Way and Story Squares in "Using Story Squares in the Japanese Classroom."

Ruth Sasaki, in "The San Francisco Trip: Creating a Thematic Context Using Unrehearsed Tapes," shows how to use a series of ad-libbed dialogues which are tied together by a developing plot.

The final article, "Teaching ESL Technical Writing Through the Personalized System of Instruction" by John Keenan and Gayle Nelson, describes step-by-step an application of PSI to the individualized instruction of technical writing to international students of engineering.

Also included in Vol. VII No. 1 are reviews of two recently published books, Listening Contours by Michael Rost and A First Book of Boardgames by Donn Byrne. The final section, "Bright Ideas," offers two short, very practical articles, "Prepared Speeches" by Elena Pehlke and "Daily Duty" by Sherraid Scott, based on classroom techniques.

Cross Currents is published in English with summaries in Japanese provided at the beginning of each issue. Subscriptions are available for $6.00/issue, $10.00/1 yr., $18.00/2 yrs., from the Cross Currents, Language Institute of Japan, 4-14-1 Shiroyama, Odaward 250, JAPAN. Payment should accompany order.

CALL FOR PAPERS

3rd European Symposium on LSP (Language for Special Purposes) Copenhagen, 1981

Abstracts: The abstract should be max. 2 pages long and be:
- written in English, French or German
- typed with double spacing and on one side of the paper only (paper format: see attached model)
- submitted in 3 copies.

It should be headed with the following information:
- name, address and telephone number of

- author(s)
- topic which the paper deals with
- full title of the paper in the language in which it will be read at the Symposium (English, French, German)

The abstract should reach the Organizing Committee not later than March 1, 1981. The Committee will select the papers to be read and recommend a form of presentation (symposium, workshop). The authors will be notified of the Committee's decision by June 31, 1981.

The abstracts of the papers accepted for the Symposium will be photocopied and distributed in advance to all registered participants.

To be sent to: The ORGANIZING COMMITTEE of the 3rd EUROPEAN SYMPOSIUM on LSP, FAGSPROGLIGT CENTER, COPENHAGEN SCHOOL OF ECONOMICS, 7 Fabrikvej, DK - 2000 F COPENHAGEN, DENMARK.

Book Review

Book Review: IT'S UP TO YOU. LANGUAGE SKILLS AND STRATEGIES FOR GETTING A JOB. Joanne Dresner, Kenneth Beck, Clare Morgano, Luise Custer. Mission Language and Vocational School, Inc. New York: Longman, Inc. 1980. 120 pages (including answer key, transcript of recorded conversations, and appendix)

Review by: Marianne McDougal
Oregon State University

It's Up to You has been designed for non-native speakers of English that must enter the job market before their English skills have been sufficiently developed. The book, with a twofold purpose, focuses on development of linguistic skills and job-seeking strategies. Students are exposed to the techniques of applying for jobs, all the while practicing the language skills required at each step, e.g. reading the want ads, filling out job applications, or responding orally to interview questions. Development of listening and speaking skills has received the most emphasis, although a fair amount of reading and writing takes place. A realistic situation is created in the classroom by exposing students to excerpts of actual conversations that take place with job applicants, employees, and personnel interviewers. The recorded conversations accompany four of the six units of the book and provide the basis for many of the language and social skills presented in the text. Of particular importance is the wealth of technical and sub-technical vocabulary extracted from the conversations.

The six units of the book parallel the steps taken to apply for a job and include the following topics:

Unit 1: Who Do You Think You Are?
(Exercises in personal evaluation)

Unit 2: What Do You Think You'll Do?
(Exercises in examining your job needs)

Unit 3: What Will You Find Out?
(Exercises in using the want ads)

Unit 4: Will They Call You?
(Exercises in calling about jobs)

Unit 5: What's Their Opinion?
(Discussions of Interviewer's suggestions)

Unit 6: What Are You Going to Say?
(Exercises in answering interview questions)

The format of each unit varies with the content, although the recorded conversations are generally introduced in the same way: difficult words used by the speakers are defined and used in sentences and "focus questions" which allow students to consider how the topic relates to them and to share personal opinions are discussed before hearing the tapes. The conversations are followed by comprehension questions or information transfer exercises. The wide variety of exercises found throughout the book makes for a challenging program, while a feeling of continuity results from the carefully ordered content information.

Although no particular method of presentation is advocated, It's Up to You would prove most effective when presented in the classroom where partner and group work could be conducted. Because so many of the exercises are open-ended with no right or wrong answers, the teacher's role tends to lie primarily in the area of guidance and support.

The authors of this text have made it a convenient one for teachers to use by providing a thorough overview of the book and suggesting various techniques for successful presentation. A complete transcript for all recorded conversations is found at the end of the text, and an answer key has been provided for selected exercises. Symbols have been used to mark those exercises accompanied by recorded material, when answers can be found in the answer key, and when a question is for discussion rather than comprehension.

It's Up to You is a creative and extremely well written text that exposes students to the linguistic and social skills necessary for entrance to today's highly competitive job market.

****

BUSINESS EXPRESS

Business Express is a new magazine for students of business English from Modern English Publications LTD., 33 Shaftesbury Ave., London W1V 7DD England. It is published quarterly, the first issue Sept., 1980. It is 24 pages plus a cassette and is available for £18 plus postage for one year. It is aimed at the serious student of business English who is following an intensive language course or working on their own. It includes articles and features on world business centers, accounts of business practice, articles of topical interest, a restaurant guide, focus on specific countries and interviews.

bibliography

The articles listed below are currently available form the Clearinghouse on an "at cost" basis, which covers the cost of reproduction and mailing. No Profit accrues to the Clearinghouse. Please make checks payable to: Oregon State University.

HOLDINGS OF THE ENGLISH FOR SCIENCE AND TECHNOLOGY CLEARINGHOUSE, 1977 to 1980

Compiled by Gail LaGrander

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Todd Trimble, Mary. "Publishers of Books Interesting to EST Teachers" .25

Todd Trimble, Mary. 'A Short List of Scientific Dictionaries" .20

Todd Trimble, Mary. "Useful Books for (ESP) Teachers" .20

Van Naerssen, Margaret; Diana Adams-Smith, Elaine Anderson and Karen Kale. "Bibliography of ESP - Medicine" .60

Van Naerssen, Margaret M. "Relating to the Communication Concerns of Foreign Medical Colleagues" .95

Watanabe, Linda C. "The Rhetoric of Range Management Lectures" 3.50

SPRING INSTITUTE FOR INTERNATIONAL STUDIES

The Spring Institute has openings for teachers and senior teachers beginning in the fall, 1980. The Institute has two intensive English language programs for foreign students with skill classes at five levels. They also offer Cultural Studies. They also offer a program for Indochinese refugees. Spring Institute is a new and growing organization located in Denver, Colorado. Those interested in being considered for a position should contact Barbara Sample, Spring Institute for International Studies, 5025 Lowell Blvd., Denver, Colorado 80221 USA.

English in Focus: ENGLISH FOR ELECTRONICS AND ELECTRICAL ENGINEERING

Oxford University Press has published the final volume in the English in Focus series. It deals with electronics and electrical engineering. It follows the same pattern as the other books in the series and has eight units. Each unit is concerned with a particular aspect of the specialist subject. This book covers conductors, insulators, semi-conductors, circuit elements, dc motors, cathode ray tubes, moving coil meters, process control systems, semi-conductor diodes and logic gates.

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ADAPTING THE "SILENT WAY" TO AN EST CONTEXT

By John Morgan, University of Missouri - Rolla

Concerning his use of Cuisenaire rods, Gattegno remarks in The Common Sense of Teaching Foregin Languages (p. 35) that "there are other objects no doubt that could be selected for the same end, but none seemed to be as versatile as these...." As far as I am aware, no satisfactory "other objects" have been proposed for Silent Way use in recent years despite the remarkable growth in the popularity and acclaim of the method. I would like to describe what has seemed to me a generally satisfactory alternative to colored rods and, in terms of versatility, especially in EST contexts, oftentimes a preferable alternative.

I am referring to the substitution of a set of colored, insulated electrical wires for the now traditional "Algebrics"—an idea that occured to me one afternoon in Algeria when I was trying to find a way to "technicalize" a beginning level English course for student whose subsequent electronic training would be entirely in English. I was working next to a "wiring shop" class where an abundance of wire, coming in a variety of very vivid colors and in different types and thicknesses, was scattered around. I availed myself of a quantity of wire from the scrap bin in that class and cut it after the fashion of Cuisenaire rods, except that each colored wire was twice the length of an analagous rod (2 inch yellow rod = 4 inch yellow wire). Wires of a different color, that is, vary relative to each other as the rods do, but a set is three times longer overall than a rod set. The wires are thus larger as well as more vividly colored than the rods, many of which are somewhat too small and dull for effective use at a distance.

The wires can be employed, like the rods, simply in conjunction with the charts (it is an easy enough matter to modify and amend the charts as necessary). They can serve, as the rods do, as a neutral vehicle to illustrate the basic structural facts of a given language—i.e., in the orthodox Silent Way mode. Used this way, the wires share with the rods the virtues of being abstract, clear and non-representational. Thus, they do no—as Earl Stevick has pointed out[1] representational objects frequently tend to do—preempt the functioning of the imagination. (He goes on to quote Maria del Carmen Gagliardo's description of the rods as "austere" and "mesmerizing" — a description which applies equally well to the wires.)

It is when it comes to the third stage of rod use identified by Gattegno—"extending the rods to life situations" (CSTFL, p. 65) — that I find wires especially apt and preferable instruments for EST use. They provide a clear cut pedagogical continuum from the initial "functional vocabulary" over into the broader field of technical concerns—and they do so right from the start. (There is no real jump implied here anyway. I don't think it is widely enought recognized that Gattegno's "functional vocabulary" is, in fact, for the most part scientific/technical in nature, addressed as it is to a given language's very basic spatial, temporal, and cause/effect functions. It is this that has alwasy seemed to me to recommend at least some Silent Way work for the beginning stages of any EST program.)

---

[1] Memory, Meaning and Method, (Newbury House, 1976), p. 145.

The extension-to-life-situations phase is, however, distinctly clearer and more cogent in the case of the wires because one merely begins to focus upon the wires *per se* whenever one sees fit, retaining the option of switching back and forth from one mode to another: wire as neutral vehicles analagous to the rods vs. wires as technical, electrical realia. In addition, one can all along keep a collection of scrap wire around for hands-on illustration of, for instance, series like 'pull','tension', 'taut', 'tight', 'tighten','increase', 'decrease', etc. One soon discovers that the wires have a potential and dynamic of their own and yield their own unique content. Anyone using them attentively will, I think, find them to be something more than a mere pseudo-technical gimmick. It is my impression that, far from being that, they are, at least potentially, a very useful language teaching innovation.

Their shortcomings *vis a vis* the rods are few and obvious. They illustrate 'through', for instance, better than the rods do, "on top of" not as well. They do not possess the bricklike character of the rods; rather they are pliable and fluid in their possibilities (literally—you can illustrate 'wave', no less, with them). And a great many other operations not open to an instructor employing the rigid wooden sticks are available through the wires.

1) They permit comparisons in terms of thickness and thinness, unlike the rods which are all of a uniform thickness.

2) They have an *inside* and an *outside*, an *interior* and an *exterior* each (a) made of a different *material* (plastic or rubber versus copper) and (b) having a different *function* (*insulation* vs. *conduction*—the whole lexical stock going to safety, heat, fire, shock, etc. opens up.

3) They can serve as a medium for the introduction of an entire body of information on basic electrical principles (*Current*, *flow*, etc.).

4) They can be used to put in circulation vocabulary like *curved*, *bent*, *pliable*, *maleable*, *circular*, *semi-circular*, etc. and all hands-on, providing a deep somatic reinforcement for the concepts (See if this long orange will go around your upper arm. Etc.).

5) They lend themselves to count/non-count and noun/verb contrasts in a way the rods do not: *wire* (non-count), *a wire* (count), *some wires* (count), *some wire* (non-count), *that wire* (non-count), *that wire* (count), *to wire*, *wiring*, etc. (Not to mention thaings like: "I wired my house last week" as opposed to "I wired home last week".)

6) The qualities and properties of copper may be gone into, putting in circulation a wealth of relevant concepts ranging from thermal conductivity to rust resistance and specific gravity.

7) Items like *to change*, *to shape*, *to modify*, *to alter*, etc., can be very clearly demonstrated.

I think number four above bears particular emphasis and is especially a strong point of the wires. There is a tactile appeal to them that is wholly lacking in the rods. They invite manipulation—all manner of bending, twisting, and turning —leading to a physical involvement in what is being taught. This can provide a welcome relief from the kind of exclusively cerebral learning situations Curran in particular has been rightly critical of. It also has a decided relaxing effect on a class over time—once they get used to scraps of wire being available in the room. (I have actually had cigarette smokers tell me that they felt better able to concentrate during a class if they had a piece of wire to keep their hands active.)

And this merely scratches the surface. I think the value of colored wires in an EST classroom reaches well beyond the range offered by Cuisenaire rods. While permitting almost the whole spectrum of information with which the rods have come to be identified, they allow the introduction of a technical atmosphere at the very lowest levels and integrate the learning of basic language structures with the learning of basic technical concepts and vocabulary (this long before the 500 TOEFL level still sometimes proposed as the starting point for EST). And one perception of the range of uses to which the wires may be put is constantly broadened through their classroom employment. Whether they are employed alongside the rods, as a change of pace after an initial period of rod use, or are used to replace the rods entirely, the possibilities are as many as an instructor's imagination and situational demand might combine to produce.

REFERENCES

Gattegno, Caleb. *The Common Sense of Teaching Foreign Languages*. New York: Education Solutions, 1976.

Stevick, Earl W. *Memory Meaning & Method*. Rowley, Mass.: Newbury House, 1976.

* * *

ESP TEACHERS' TRAINING COURSE
INSTITUTE OF ENGLISH LANGUAGE EDUCATION
UNIVERSITY OF LANCASTER

The IELE offers an intensive advanced training course for teachers of English for Specific Purposes (ESP), particularly but not exclusively, in the areas of Technical, Scientifc and Vocational English.

This advanced course provides in-service for ESP teachers or teach trainers who wish to improve their professional effectiveness, up-date their knowledge or learn more about recent developments and current thinking in the area of ESP.

Participants will all be experienced teachers working in relevant areas of ESP, from a variety of countries, but with a broadly similar background of work.

* DURATION OF COURSE *

The course is intensive in nature, with a minimum of 20 contact hours per week, for one academic term.

DATES: The next course is scheduled to being on October 6th, 1980, lasting until December 19th, 1980.

The first course in 1981 will be from January to March. Further courses for 1981 will be announced.

* AIMS:

1. To develop teachers' professional pedagogic knowledge in the area of English for Specific Purposes.

2. To develop an understanding of recent theoretical and practical advances in ESP as applied to specific language education.

3. To consolidate teachers' expertise, to enable them to work independently and confidently in their home institution, and to play a major role in the dissemination of knowledge and the improvement of local practice.

* CONTENT:

The course focuses upon a communicative approach to the teaching of English for Specific Purposes, and deals with a variety of topics in the areas of teaching the language or communication of a technical subject and learning language as a communicative activity, covering topics such as:

- discourse analysis
- curriculum and syllabus design
- needs analysis
- material adaptation and development
- the relevance of a communicative approach to the teaching of ESP
- evaluation of materials and methods
- classroom management
- student evaluation
- learning and teaching in a communicative syllabus

The course is project and task-based with related group and individual instruction. Part of the course will be devoted to a consideration of specific problems in areas such as reading manuals, textbooks and professional articles; writing reports' understanding lecturers and instructors. Elements to be covered include appropriate instruments for the assessment of student learning in a communicative environment and the identification and description of the communicative needs of students.

* COURSE OUTLINE *

A typical basic plan of weekly activities of the Lancaster course is as follows:

Week 1: Activity One: ESP Teaching Situations.

Activity Two: ESP: What are the Issues?

Week 2: Activity Three: Teaching a Specialist Subject.

Week 3: Activity Four: Language as Communication.

Week 4: Activity Five: Learning Language as a Communicative Activity.

Week 5: Activity Five: (Continued)

Activity Six: Testing ESP in a Communicative Framework.

Week 6: Activity Seven: Needs Analysis

Week 7: Activity Eight: Discourse Analysis.

Activity Nine: Materials Design

Week 8: Activity Nine: (Continued)

Week 9: Activity Ten: Materials Writing

Week 10: Activity Eleven: Review. In-country follow-up plan.

* In addition, there is a programme of talks by by visiting speakers, who are internationally-known ESP practitioners.

THE COURSE OF TEACHING
ENGLISH FOR SPECIFIC PURPOSES

By Elżbieta Krawczyk

Organized by the Department of Language and Linguistics of the University of Essex in Colchester, this course lasted from 21 April to 26 June 1980. There were nine participants at the course: 5 English and 4 foreign (American, Pakistani, Japanese and Polish). The course was divided into 9 weeks, the scheme of weeks 1 - 7 being the following:

Monday: * background lecture and seminar
Tuesday: * free for private study
Wednesday: * seminar or practical
Thursday: * seminar and practical
Friday: * lecture

Weeks 8 and 9 were devoted to project presentations. Lectures were either related specifically to ESP or to more general topics in Applied Linguistics. In week 1, for example, Jo McDonough lectured on ESP: A Survey of the Field and Steve McDonough on The Role of Psychology in Applied Linguistics; in week 2, Fred Chambers lectured on Problems in Needs Analysis and John Roberts on The Concept of Communicative Competence; in week 3 Jo McDonough lectured on Survey of Approaches to Material Design and John Roberts on Linguistics Applied: Historical Overview; in week 4, Vivian Cook lectured on Notional Syllabuses and Fred Chambers on Functional Descriptions of Language; in week 5, Tony French and Jo McDonough lectured on 'The Study Skills' Approach and Its Relation to 'Occupational' English and Steve McDonough on Psychological Factors in Reading; in week 6, Steve McDonough lectured on Problems of Testing in ESP and Testing: An Overview; finally, in week 7, Jo McDonough lectured on Approaches to the Description of Scientific Language. Seminars were based on the reading and presentation by course participants of specific published books and papers (from an obligatory reading list) as an introduction to a seminar discussion. Practical sessions had a workshop orientation and involved a number of different activities depending on the week's theme. As to the course work requirements, the participants were to submit two in-term essays, one on needs analysis and another one on either background to materials design or materials evaluation, a project that was a substantial piece of work consisting of a small set of teaching materials with a considerable theoretical justification, and a take-home exam answering 2 questions selected from 12.

All course participants were awarded Certificates, 3 of them with distinction. Besides regular activities described above, the Department of Language and Linguistics arranged other activities, such as talks by visiting speakers and visits. On 12 May Tony Crocker from the British Council talked about "ESP Practice", on 22 May there was a visit to Colchester English Study Centre and on 29 May Tim Johns from the University of Birmingham talked on "The Team Teaching of Lecture Comprehension". On 9 June there was an exhibition of EFL/ESP books and materials organized by the Cambridge International Book Centre.

850 MILLION LACK BASIC EDUCATION

(Ed. Note: As the new US academic year begins, the following comments on education from the World Bank may serve to give us some insights into just who the students in our ESP classes are — in the latter part of our century, the means by which developing nations hope to achieve basic human needs.)

Despite severe limitations of resources, developing countries have made substantial progress during the past three decades in sending more children to school and in gnerally improving their education systems. But, over 250 million children and 600 million adults still lack basic education, says a World Bank policy paper on education released today.

"The problem of the 'pupil explosion' is growing as the proportion of youth in the population of the developing world increases and the demand for education overwhelms the supply of physical resources," observes the new EDUCATION Sector Policy Paper.

The publication points out the unequal opportunities among various population groups — such as the poor, rural dwellers, and women — and wide disparities among regions within countries, have inhibited the achievement of the United Nations' goal of free primary education to all.

"Of all the disparities, none is of greater hindrance to development than that based on sex. If the greatest single obstacle to improvement in general living conditions is continuing population growth, and if the social, economic, and educational status of women significantly affects fertility levels, then the education opportunities available to women are of crucial importance."

The report notes that inefficiencies keep both the number of students in school and the quality of education they receive much below what the available funds might permit. As a result, only half of those who enter primary school reach the fourth grade, repeaters occupy 15% to 20% of school places, and academic achievement is far below desired levels. A large percentage of those leaving school do not find appropriate employment.

Reviewing the considerable achievements in education development, the report says that enrollment of students has expanded at all levels of education in the developing countries. The number of children enrolled in primary schools increased from 65 million in 1950 to 236 million in 1975, and at the secondary level, from 7.5 million children in 1950 to 69 million in 1975.[1]

The pace of expansion of education has been quite rapid. At the primary school level, enrollment increased 6.4% yearly between 1950-60, the period during which most developing countries won their independence, and levelled off at 4.8% between 1960-75. At the secondary school level, the annual expansion was 9.3% (1950-60) and 7.7% (1960-75).

"To maintain the current primary enrollment ratio in the face of pressing population growth, enrollment must increase about 30% between 1975 and 1985," says the report.

Mechanisms will also need to be improved to meet the basic educational needs, local resources will need to be mobilized, and schools will have to be located in the right places to improve the access to education for disadvantaged groups. The success of these measures, the report points out, will depend on the political commitment of central and local authorities and their willingness to deal with various interest groups which may oppose new policies and programs that affect their status, power, or advantage.

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[1] These statistics do not include China, North Korea, and Viet Nam.

The report reviews the changing role of education in the past three decades — from raising political and social consciousness of the newly independent countries in the 1950s to meeting the needs of the modern sector for trained manpower in the 1960s. With the increasing concern about the relevance of education in the 1970s, efforts have been made to relate education to work and to integrate it into all development efforts.

Education must play a central role in development, emphasizes the new policy paper. "The development of human resources not only helps alleviate poverty but also contributes to growth in national productivity and income."

"Studies have also shown that economic returns on investment in education seem, in most instances, to exceed returns on alternative kinds of investment, and that developing countries obtain higher returns than the developed ones." Education is now seen as a basic need and a means of achieving other basic needs.

The trends in the 1980s, the World Bank reports, will be toward making education more relevant to national life, culture, and the needs of different population groups within countries. Many developing countries, the report notes, are already moving toward the use of local languages in the early years of formal schooling, while in countries where foreign languages have become the media of instruction, efforts are being made to reactivate the national languages.

● CONTINUED ON PAGE 7.

ENGLISH AT THE BEIJING BROADCASTING INSTITUTE

Helen Young, BBI

(Ed. Note: The following is an excerpt from a report on an intensive English course for 15 adult technicians, engineers, and teachers in the Radio and TV field. The course was conducted at the Beijing Broadcasting Institute, Beijing, PRC.)

METHODOLOGIES: The Basic rule of the class was that only English could be spoken. The exercises and drills were a misture of mechanical and meaningful drills, using substitutions and spiral forms to give the students as much variety with sentence patterns and vocabulary as possible. The students were taught to ask questions in the first lesson and were encouraged to ask questions about the text, about grammar and about western culture, society, living conditions and so on. These questions were often the basis for informal lectures. As the class progressed, the questions became more sophisticated, often concerning word usage and semantical differences. The exercises were done by the students with tapes outside of classroom hours, often with the help of the assistants. I taught them how to do the exercises with the tapes. Their written work often became the basis for drills and review, for I corrected their work immediately and could identify and correct weak or misunderstood areas throught informal lecture or drills. The student presentations were a very important part of the classwork. The first presentation was a dialogue written by two students in which they were to greet each other and discuss studying English at the Broadcasting Institute. These dialogues were polished by the assistant teacher and the students presented them in front of the TV camera during the second week of class. Subsequent presentations were role-plays or simulations of being at a party, going to a restaurant (also televised), visiting the doctor, doing business with a bank, planning a trip in the U.S., furnishing an apartment, and planning an evening's social activity. The original plan included three televised presentations so that the students would be able to measure their own progress. Unfortunately, the first two tapes were erased before they could be used in that way. The final presentation was virtually unrehearsed. The students were given materials to study but were not told the situation they were to simulate until half an hour before the presentation.

The classroom was organized informally, the desks arranged in a "U" to make it easy for the students to talk with each other. The classroom atmosphere was purposely kept informal so that the students would feel free to talk. The organization of the course content during class hours varied with the number of hours I taught the students. When I was with them eight hours a week, I concentrated on the model sentences, answering questions about the lessons, doing extra pattern drills and review, and working with them on student presentations. When I was with them eighteen hours a week, I also worked with them on their exercises and helped them listen to the Voice of America Special English broadcasts.

BRITISH COUNCIL, MEXICO CITY

ENGLISH LANGUAGE TEACHING RESOURCE CENTRE

With thanks to the many publishers, booksellers, educational institutions and individuals whose advice and help in the provision of materials have been invaluable, we are pleased to announce the opening of our national ELT Resource Centre, housed on the top floor of the Library of the Anglo-Mexican Cultural Institute. We hope to make available to anyone involved in the learning and teaching of English in Mexico as wide a range of materials as possible, both published and unpublished.

The Resource Centre, at the moment, includes the following:

Course books and supplementary materials.

Reference materials.
Linguistics and Applied Linguistics materials.
Journals, magazines and research articles.
Teaching films.
Tapes, slides and visual materials.
English Literature materials.

SERVICES: Apart from the materials listed above, we hope to offer the following services:

1. Film Loan Service: We have films available for loan both on teaching methodology and also TV English lessons. These will be able to be borrowed during consultation hours. However, those wishing to borrow films should arrange to do so well in advance of their date of showing, in order to allow time for filling in the required loan contract and to make sure the film will be available when required. Those unable to come to the Centre will be able to reserve films by telephone or mail, but no film will be loaned out until the necessary contract has been completed and returned to the Centre. Lists of the films which can be borrowed (see Appendix 1) are available in the Resource Centre.

2. Consultations: The English Language Assistant- Fred Rogers - responsible for the day to day running of the Resource Centre, will be available for consultation for those wanting information about materials, etc, in the Centre between 11.30 and 13.30 hrs. and 15.30 and 18.30 hrs daily. The Centre's office will also be open on the following Saturdays in 1980 from 09.00 to 12.30 hrs — July 12th, August 9th, September 13th, October 11th, November 8th and December 13th. In order to give maximum attention, we ask those of our users who would like more than a brief consultation to make an appointment in advance with the English Language Assistant (Tel: 566-6144, Ext. 28).

3. Photocopying Service: For some of the materials which will not be available for loan, there will be a photocopying service. The cost of photocopies will be 5 pesos per copy. Obviously, because of copyright restrictions etc., not all materials will be able to be copied.

4. Audio-visual Area: The Centre already has some cassettes and slides which can be borrowed, at the same times, and on the same conditions as the films. We shall soon have a listening and viewing area where visitors will be able to examine these materials, and we intend to considerably increase our stock of such materials in the future. We also plan, very soon, to have video cassettes and filming equipment to use in seminars and workshops.

5. Journals: We have a wide variety of journals and newsletters on ELT activities in many parts of the world and hope to extend this collection both geographically and in terms of subject matter. These materials will not be available for loan as they are subject to damage, but photocopies of specific articles etc can be obtained through our photocopying service. As copies accumulate, they will be bound and put into the Library loan system.

READERS FROM HEINEMANN

Heinemann Educational Books now has available several titles in its Science and Technical Readers series. Initial titles are FLIGHT; ENERGY; and PETROLEUM: UPSTREAM. More titles will be released later this year. The price per volume is $2.75. ESP teachers may wish to consider them as supplementary readers to their courses. The books are short and subdivided into several units each. Concepts presented are at an elementary level and there are numerous illustrations. Teachers adopting these books will probably want to create additional exercises beyond those provided. Much good material in these books is relatively unexploited. Heinemann can be contacted in the U.S. at 4 Front Street, Exeter, NH. 03833.

MANAGEMENT ENGLISH

MANAGEMENT ENGLISH - A Language Course for Foreign Executives, by K.E. Rowen is available from Hodder and Stroughton Publishers in Australia.

MATH

The latest book in the Nucleus series from Longman's, MATEMATICS, by David Hall and Tim Bowyer is now available in the US. Contact Carol Taylor, 19 West 44th Street, NYC, NY. 10036.

PRACTICAL PAPERS IN ENGLISH LANGUAGE EDUCATION

VOLUME 3 of Practical Papers in English Language Education will be published in NOVEMBER 1980 at a charge of £ 3.00 per copy (to include packing and postage). Contact: The Secretary, Institute for English Language Education, Bowland College, University of Lancaster, Lancaster LA1 4YT, England.

Back numbers of PPELE Papers Vols. 1 and 2 (1978 and 1979) can be obtained from this address at £3.00 per issue (to include postage and packing).

ANNOUNCEMENT

The Japan Association of Language Teachers (JALT) will sponsor the JALT International Conference on Language Teaching/Learning — 1980, from November 22—24 at Nanzan Junior College, Nagoya. Over 700 participants from near and abroad are expected for the conference which will feature James Alatis (Georgetwon University), Joan Morley (University of Michigan), Gertrude Moskowitz (Temple University), and Jack Richards (Chinese University, Hong Kong).

There will be over 80 presentations in the form of papers, workshops, and demonstrations, on relevant topics related to second language acquisition, during the three days.

For more information, contact: Paul G. LaForge, English Department, Nanzan Junior College, Showa-Ku, 19 Hayato-Cho, Nagoya 466.

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850 MILLION LACK EDUCATION CON'T.

The report notes that despite competing claims on scarce resources, the public expenditures of developing countries on education have increased steadily over the years, comprising on the average:

- 4% of the gross national product compared with nearly 6% in the industrialized countries; and
- 15% of the total national budget — about the same as in the industrialized countries 1.

But because the cost of educating a student is high, particularly at the higher levels, an unjustifiable burden has been placed on the finances of developing countries, the report observes. Many of the African states, for example, have been spending over 1,400% of their gross national product (GNP) per capita on educating a university student, compared with only 55% in the industrialized countries, and 362% for the developing countries as a group. And yet, the overall expenditure per student in the developing countries is much lower than in the industrialized world.[1]

"It is, thus, clear that if education systems continue to grow at the present rate and under the same structural and managerial conditions, they will require funds that — while far below those allocated to education in developed countries — will be beyond the financial capabilities of many developing countries."

Copies of EDUCATION Sector Policy Paper are available in English free of charge from the:

Publications Unit
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433
U.S.A.

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[1] Details in Table 3, page 67.

[1] Details in Figure 3 (page 69) and Figure 4 (page 70).

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By Ian Burns, University of Minnesota

University of Minnesota Institute on the Teaching of English for Science and Technology, Jilin University of Technology, Changchun, P.R.C.

Devised as an intensive program for college-level teachers whose main interest was the teaching of scientific and technical English, the Institute at Changchun ran from June 19 through July 12, 1980. Four members of the University staff served on the program — Professor Helen Jorstad, Mark Landa, Coordinator of the English Program for International Students, and Teaching Associates Karen Reilly and Janet Rosenberg. Professor Betty Robinett accompanied the staff to China and stayed for the first two weeks lecturing and dealing with the arrangements for the program. The objective of this first institute in China was to provide a review of current issues and theories of teaching English as a foreign language, and demonstrations and overviews of new techniques and materials for classroom use. The program of the Institute consisted of a combination of large-group presentations, small-group follow-up sessions, and small-group work on specific language and teaching skills. There were thirty-seven participants, twenty-one of whom were teachers from the Jilin University of Technology.

Every effort was made to provide the Institute staff with the best entertainment, travel, and personal help. Various activities were arranged, including a dinner at the home of a Chinese family, excellent tours before and after the program, and Chinese language lessons. Evaluations of the program on an informal basis was ongoing and the program changed a good deal over the four weeks as participant needs and interests became clear. The overwhelming feeling evident from the formal evaluation at the end of the program was that the Institute was a solid success.

A University of Minnesota delegation visited China in September and discussed proposals for two English Language Institutes to be held at other institutions in China in the Summer of 1981.

Minnesota-Nankai Summer Intensive Chinese Language Institute

Thirty-seven students coming from twenty American Universities attended an intensive Chinese Language Institute this summer from June 27th to August 23rd at Nankai University in Tianjin. The Institute was jointly organized by the University of Minnesota and Nankai University. The American students were led by co-directors, Professors Mei-Ling Hsu and Chun-Jo Liu, and Associate Director, Professor Victoria Cass. At Nankai the group was welcomed at a convocation held on the afternoon of June 28th at which Vice-President Lou of Nankai and Professor Mei Ling Hsu gave brief addresses.

Chinese language classes were taught at three levels — second year, third year, and advanced. A placement test given in Nankai necessitated several adjustments to the originally devised class and teaching plans. Three Class Presidents were appointed and gave very valuable assistance to the Directors. In addition to one hundred and four hours of classroom instruction and fifty-four hours of tutorial work, a number of lectures and films were offered as well as regular field trips and a highly popular "tai-ji" class. In spite of such a full program students still found time for personal contacts with Chinese friends. The group occupied a two-story dormitory building — two students in each room — and shared a dining room with other international students at Nankai.

On the final day of the Institute, Professor Xian Gongwan of Nankai gave a summary report of work done during the eight-week session. The final grades of the students demonstrate that the academic achievements of the Institute were impressive and the students in their final evaluation questionnaire achievements of the Institute were impressive and the students in their final evaluation questionnaire expressed a high level of satisfaction with the success of their first experiences in China. Later eighteen students took part in a post-Institute tour of South China.

Negotiations for the 1981 Minnesota-Nankai Institute have already begun. The positive atmosphere achieved this summer, coupled with the numerous recommendations offered by faculty and students for improvements in curriculum and organization, speak well for the future of the Institute. We look forward to issuing a brochure for the 1981 Summer Institute later this year.

RELC REGIONAL SEMINAR

Varieties of English and Their Implications for English Language Teaching in Southeast Asia

Singapore, 20 - 24 April, 1981

The Southeast Asian Ministers of Education Organization (SEAMEO) Regional Language Centre (RELC) will hold its 16th Regional Seminar, 20-24 April 1981, in Singapore. The theme of the seminar is "Varieties of English and their Implications for English Language Teaching in Southeast Asia."

The objectives of the seminar are:

> To review the status and function of new varieties of English, with particular reference to Southeast Asia;
>
> To assess the significance of psycholinguistic, sociolinguistic and pedagogic variables in relation to new varieties of english;
>
> To review research findings in this area and to establish priorities for research;
>
> To consider goals, methods and resources for language teaching in settings where local varieties of english exist;
>
> To assess the effects of new varieties of english in Southeast Asian countries where english is neither first nor second language.

Abstracts are invited on topics relevant to the theme of the seminar. Further information and invitations to participate in the seminar can be obtained from the following address:

Director
(Attention: Chairman
Seminar Planning Committee)
SEAMEO Regional Language Centre
RELC Building
30 Orange Grove Road
Singapore 1025
Republic of Singapore

B.C. TEAL/TESL CANADA CONFERENCE

CALL FOR 1981 PAPERS

C.C. TEAL is hosting the Second TESL Canada conference in conjunction with its 14th Annual Convention. Presenters from all areas of Canada will be selected, thus ensuring a nation-wide exchange of information on the Teaching of English as a Second Language.

VANCOUVER, BC — MARCH 12,13,14
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GENERAL THEME: English in a Candian Context: for schools and work

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Adult Basic Education
Program Administration

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Standard English as a Second Dialect
Language Acquisition
English for Special Purposes
Multiculturalism

PRESENTATION TYPES

WORKSHOP -
Solves a problem or develops a specific teaching or research technique. The abstract submitted should include the presenter's specific aim or goal and the procedure which will be used during the workshop session.

PAPER PRESENTATION -
Summarizes work in progress of work completed in relation to theory or to practice. The abstract submitted should include a summary of the conceptual content of the paper, conclusions, and application to teaching.

PANEL PRESENTATION -
Allows a small group of people under the leadership of a chairperson to discuss their current concerns and/or research. The chairperson is responsible for securing panel participants. The abstract submitted should include the aim or goal of the presenters and the procedure to be followed during the presentation.

TO SUBMIT A PROPOSAL, please contact:

TEAL '81 CALL FOR PAPERS
c/o Maureen Seesahai — Phone: (604)
#5 - 2445 W. 1st Avenue — 732-8756
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Canada

PROPOSAL DEADLINE: November 30th, 1980

VESL EXCHANGE

COLUMN EDITOR: NICK KREMER,
VALLEY VOCATIONAL CENTER

INVESTIGATING THE LANGUAGE OF WORK

There has been very little research into the language of work, especially in the entry level settings at VESL is concerned with. We have a limited understanding of the language of work or even the role of language in the success of LEP employees. Materials developers and teachers have been given little direction in their efforts to target instruction to meet particular needs. Two recent investigative efforts begin to fill the void. Interestingly both were done as preliminary steps to end products—one a test and the other pre-vocational teaching material--rather than as ends in themselves.

Resource Development Institute (RDI) under the direction of Mary Galvan did an extensive study of vocational language in the process of designing the Bilingual Vocational Oral Proficiency Test. Linguists gathered over 4000 oral samples from twelve different vocational field. They were able to identify different communication areas such as naming tools and equipment, listening to directions, and location (directionality). The study found that forty per cent of the samples involved imperatives. Prepositional phrases, adverbial clauses, and the passive were all found to be important. The most common patterns were noun + verb + direct object and pronoun + to be + noun. The vocabulary of vocational language offers an interesting contrast as verbs tend to cross vocations—the same verb may be found in several different occupations—but nouns tend to be specific to an occupation. In fact the study couldn't find any nouns that occurred in more than three fields.[1]

The RDI study appears to identify commonalities that could make the task of the VESL teacher who faces students from varying occupations in the same classroom easier because he/she can teach verbs and communication tasks that are common to several or all occupations. However, the absence of common nouns complicates things considerably. You can teach imperatives or prepositions of location but there has to be a context which usually depends on nouns. An imperative to do what? "Grab a ratchet." How will a location be identified? "It's behind the drill press."

The second study was done by Gage, Prince, and Hara of Edmunds Community College in Washington. They surveyed entry level employment situations such as bus boys and factory assemblers in the Seattle area. They were particularly interested in how LEP/NEP adults got jobs and how they were trained in those jobs. The study was the preliminary step in designing a pre-vocational instructional program.

The tasks in entry level jobs are classified into three categories: sorting (such as putting things away in a warehouse), assembly (such as in electronics), and maintenance (as in cleaning hotel rooms). The study also groups the training strategies into three categories: watching, modeling, and following directions, which were usually oral. In watching the employee observes somebody else doing something and then mimics it. Modeling involves working from a completed sample, such as a printed circuit board, and then trying to construct a similiar one. The three strategies represent a hierarchy with following directions being the most difficult. Clearly non-verbal strategies play an unusually important role in an LEP student's learning what to do on the job.

The verbal skills that appear to be important in the beginning include referents—"Look at these." "Get that one." The objects being referred to are in the immediate area so the name of the object is not used. Another important verbal skill is conversation starters that can be used to get someone to co-operate in showing the employee how to do something. Additional strategies are the giving of appropriate verbal and non-verbal responses to feedback from supervisors and fellow workers and clarifying instructions when necessary.[2]

The study is encouraging in suggesting that non-English speakers can get and survive in unskilled jobs. Teaching students a few basic language and non-verbal skills can get them into a job immediately. The questions that needs to be further investigated is what kind of mobility will these individuals have. The study does identify the additional skills which a person needs to move up on the job. These skills could be subsequently taught, expediting the LEP employees movement up. The other factor that becomes apparent from the Washington study is how language is intertwined with other factors in determining the LEP adult's success on the job. The ability to sort or to model or to follow directions all play important roles and are imbedded in language by may not be language per se. Perhaps authoritative research into the employment experience of the LEP will require bringing together the expertise of labor researchers, job assessment specialists, and linguists.

---

[1] Mary Galvan. The Bilingual Oral Proficiency Test. A paper presented at the National Invitational Workshop on Bilingual and ESL Approaches to Academic and Vocational Programs for Adults. McAllen Texas, March 1980.

[2] Julia Gage and David Prince. A presentation at the Region X Adult Education Workshop. Portland, Oregon, August 1980.

For further information contact:

1. Resource Development Institute, 1916 Justin Lane, Austin, TX 78757
2. Edmunds Community College, Indochinese Project, 20000 68th Avenue West, Lynnwood, WA. 98036.

The next VESL EXCHANGE will deal with career exploration and career assessment for the LES adult. Contributions and information are welcome.

Send to: Nick Kremer, Valley Vocational Center
320 N. Willow
La Puente, CA. 91746

☆LONG-AWAITED BOOK☆

The soon-to-be published ENGLISH FOR ACADEMIC and TECHNICAL PURPOSES: Studies in Honor of Louis Trimble includes the following articles:

Part One: Theoretical and Descriptive Papers

1. H.G. Widdowson. English for Specific Purposes: Criteria for Course Design
2. John E. Lackstrom, Logical Argumentation: The Answer to the Discussion-Problem in EST
3. A. Godman and E.M.F. Payne, A Taxonomic Approach to the Lexis of Science
4. John Swales, The Function of One Type of Particle in a Chemistry Text-Book
5. Peter Wingard, Some Verb Forms and Functions in Six Medical Texts
6. Deborah Tyma, Anaphoric Functions of Some Demonstrative Noun Phrases in EST
7. Sandra Oster, The Use of Tenses in 'Reporting Past Literature' in EST
8. Thomas Mage, Scientific and Technical Discourse: A Comparative Analysis of English and Romanian

Part Two: Papers on Practical Applications

9. Christopher M. Candlin, Clive J. Bruton, Jonathon B. Leather and Edward G. Woods, Designing Modular Materials for Communicative Language Learning; An Example: Doctor-Patient Communication Skills
10. Ronald Mackay, Developing a Reading Curriculum For ESP
11. J.N. Crofts, Subjects and Objects in ESP Teaching Materials
12. M.L. Tickoo, ESP Materials in Use: Some Thoughts from the Classroom
13. Thomas Huckin and Leslie Olsen, Teaching the Use of the Article in EST
14. Ljerka Bartolic, Interpretation of 'Information Transfer' from a Diagram
15. Maxine F. Schmidt, Needs Assessment in English for Specific Purposes: the Case Study
16. A.H. Urquhart, Operating on Learning Texts

Part Three: Bibliography of Louis Trimble's Works: Fiction Books and Academic Studies.

★MESL★

Editor's Note: The extract below is from an 80 page 1971 document edited by Alan Harris, now with California State University, Northridge. It speaks to Manpower English as a Second Language. It is from the staff of the Area Manpower Institute for the Development of Staff and published by: Division of Vocational Education; UCLA in cooperation with

Division of Vocational Education
UCLA
in cooperation with
Division of Manpower,
Development and Training
DHEW; USOE.

MESL - THE REAL WORLD

INTRODUCTION

Probably one of the most notable errors of ESL instructors has been to regard the teaching of a language as a simple intellectural discipline without adequate consideration for the social and psychological implications involved. For example, the average instructor has probably undertaken the study of a second language sometime during his own educational career, often both in high school and college, yet many have failed rather miserably to master that language. They frequently blame their failure on "a lack of opportunity" to practice the language. Whereas this may be an acceptable reason in the case of certain exotic langauges, how can the student of Spanish, for instance, excuse himself on such ground, especially in the Southwest where there are millions of native speakers, and where entire sections of towns and cities virtually function in Spanish?

These instructors fail to recognize the social factors which make it just as difficult for the non-English speaker to communicate with the English-speaking community as it is for the student of Spanish to approach the Spanish-speaking community. Yet these same instructors often severely criticize their students for not practicing their rudimentary English outside of class.

Certainly it should not be inferred from this that practicing English by talking with native speakers is not important. There is a direct relationship between such practice and the degree and quality of English acquired. What is implied is the fact that the MESL instructor must be sensitive to the reality of the social situation. Langage serves a far greater function than the communication of basic needs. It is a source of psychological pleasure and security as well as aesthetic satisfaction. After a couple of hours of intensive drilling in English, reversion to the native language during the coffee-break releases certain tensions. More than with the proverbial dietary practices, man is what he speaks, and during his training in a new language, there is a natural disequilibrium. Although a child "grows into" a language and is willing to experiment continually, it must be kept in mind that the adult already has a complete and adequate means of expressing his thoughts.

Further examples can be mentioned. Thousands of Americans go abroad to study every year; in many cases they live in the homes of natives and are exposed daily to the "living" languages of many countries. But woefully few ever really master the language of their host country. Everyone knows about the American communities in Paris, Mexico City, and most other large cities around the world, but many of these Americans find it impossible to master even a few simple greetings in another language, relying on two fundamental axioms:

"If you shout loud enough in English, they'll understand you," and "If they're not civilized enough to speak English, they're not worth talking to." The Ugly American has bequeathed to posterity the gaucheries of this type of American statesman. Most Americans enjoy more leisure time, a higher literacy rate and more ingenious devices than any other nation, and yet they are so incredibly inept at language learning. It is shocking to observe that often these same people are critical of immigrants who have difficulty in learning English.

On the other hand, numerous nonliterate people, from Africa to the remote villages of Latin America, are bilingual and many learn their second language as adults. Our European brethren frequently command attention with their mastery of several languages. In Southeast Asia and Micronesia, the lingua franca, pidgin English, facilitates communication among many diverse groups. Many worldwide examples of bilingualism or polyglotism could be cited; suffice it to say that the mastery of more than one language is by no means unusual or extra-ordinary.

What is this special ingredient in language learning? Certainly it is not intellectual capacity nor educational opportunity, unless Americans are willing to take a back seat to the considerable mubmer of nonliterate bilinguals around the world. It could be suggested that the difficulties experienced by many Americans in mastering other languages, as well as the problems certain immigrants encounter in learning English, are rooted in the social and attitudinal environment of these groups.

It is the intention of this paper to explore, albeit superficially, the relationship of langauge learning to the social environment and its implications for the concept of MESL and, by extension, ESL instruction generally. Although definitive conclusions are reached, it is hoped that the paper will serve as a stimulus to more intensive consideration of the social aspect of language in future designs for MESL courses.

Contempt for "Furrin Things"

Historically, Americans have been isolationists, geographically at first; but even with an expanded role in world affairs, there is still a psychological islationism. Early in American experience, there was a strong desire to break with real or imagined grievances, related to a claim of being victims of intolerance, associated with Europe. Unfortunately, these people themselves became intolerant. The native cultures later brought to the New World were derided and considered unworthy.

As the American expanded in the New World and carved an empire from the wilderness, he developed a native brand of arrogrance not unlike that from which he had fled. This was based on his ability to manipulate his environment, a technique in which he demonstrated consummate skill. His particular brand of success he came to label "progress." By simple extension, the American began to associate his social forms, his politics, his economics, and his language with this "progress," eventually developing a blind arrogance toward all other forms.

As later immigrants flocked to the United States, their labor was welcomed with the implicit stipulation that they reject their identity. The "melting pot," like the alchemist's crucible, had the singular purpose of producing a chemically pure substance and not an amalgam. There was no place for extraneous matter. Unfortunately, just as all gold is not 24 karat, all Americans are not "chemically pure." Even with a healthy amount of "Americanism," people are judged according to their skin color, shape of eyes, religion, etc.

The Protestant ethic of Northwestern Europe, which laid the foundation for American attitudes and culture, made assimilation for certain immigrant groups reasonably facile. The "looked" like other Americans and their lifestyle was not too dissimiliar, even if their language was. For others, however, whose cultures and lifestyles could not be readily understood or who physically did not blend in, there was the inner-city, the ghetto, or the barrio. Nominally they too had the "right" and "responsibility" to assimilate, but realistically, the problems were inherently greater.

To be sure, while grass-roots America maintained its cultural isolation, a burgeoning intelligentsia and a class of nouveau riche developed a certain admiration for some selective foreign "culture". Even if Americans were the cleverest of all people, certain attributes in European culture warranted admiration. However, it generally stopped with Western Europe; Americans still held most foreign cultures in contempt. Many a history book reveals how little text was devoted to the Orient, Southeast Asia, Africa, the New World Civilizations, etc., as if the entire history of man revolved around the Fertile Crescent, the Mediterranean area, Western Europe, and later, the United States.

This is not to suggest that such cultural bias or ethnocentrism is a tendency peculiar to the American people. All cultures are ethnocentric to a lesser or greater degree. Here the interest lies chiefly in the relationship between this ethnocentrism, this cultural and linguistic prejudice, and the problems of language learning.

Cultural Arrogance and Language Learning

It is not too difficult to surmise how cultural isolationism produces a detrimental effect when the American attempts to master another language. If he tends to think of the lifestyle and customs of the people whose language he is studying as quaint, colorful, curious, child-like, or something else less than equal to his own, then the language (which is an expression of the culture) will remain artificial and unattainable. Although he studies a systematic discipline of ideal rules, they will have little relationship to the living language. If he is fortunate, perhaps the most he will accomplish is a skill for superficial translation of written forms, chiefly only where he is able to find English equivalents. This student never learns to "live" the language nor experience the world through it.

It is more difficult to demonstrate how the non-English-speaking individual in the United States has been directly affected by the cultural isolationism of his host culture and how this has prevented the adequate acquisition of English. Although the writer suggests that this relationship exists generally, each group must be considered individually.

From a social-psychological viewpoint, to become bilingual is to become bicultural. As the host language is slowly interpolated, so are many of the cultural and attitudinal patterns of the host culture. If the language student cannot feel comfortable with the cultural patterns of the host culture, he may experience a state of anomie in which he feels rejected by both cultures. In order to avoid anomie and maintain psychological equilibrium, he is forced to resist the host culture and consequently the host language, even though this rejection may be unconscious. The acceptance of certain material items of American culture should not necessarily be interpreted as a broad acceptance of American cultural values.

In this analysis, it is suggested that the non-English speaker makes positive rather than negative choices. He does not choose "not to learn English." Rather, he chooses to maintain his well-being through the positive manipulation of his social environment. Whether conscious or not, there is a certain ordering of priorities when the non-English speaker approaches his new language. If there is no significant threat to his psychological well-being (e.g., if the individual totally rejects his native culture), he may easily assimilate American values, and his study of English will progress rapidly. It is unrealistic, however, to anticipate some magical point in time when the non-English speakers will collectively reject their cultural heritage. We have already suggested that American cultural isolation abrogates this possibility in part.

This is notably true of certain subculture groups such as the Chinese and Spanish-speaking, where the language and many cultural artifacts have been tenaciously retained against unremitting pressure for more than a century, and where the present trend seems to be toward strong subcultural identification. If ESL instructors are to be effective, techniques must be devised in which these social realities become assests rather than liabilities. Much of this will be accomplished through an understanding of the relationship of langauge to culture.

Again the above analysis must be qualified. It is not meant to be a comprehensive explanation or justification for the non-English-speaking enclaves in the United States. Many other factors are important and, indeed, each subcultural group has a discrete idiocracy with reference to history, economics, etc. In the Southwest, for example, early regional isolation and the immediate contact with the "mother" culture play an important role, whereas the European immigrant at the turn of the centry was forced to cut irrevocably the cultural umbilical cord. All of these factors, however, both synchronic and diachronic, are implied when we speak of culture.

Still, many of the goals anticipated by the "War on Poverty" have failed to be reached. Writing and rewriting text material, hoping to strike on some perfect form with built-in success, do not represent a complete solution any more than throwing up our hands in defeat. This simplistic approach, i.e., our unrelenting faith that enough money pumped into the effort will buy off all social ills, must be reexamined and realistic solutions must be sought.

It is equally as naive to assume that American cultural arrogance will disappear overnight as it was to believe that the forceful elimination of non-English-speaking enclaves would be successful. It is far more fruitful to explore these social phenomena in relation to language instruction. In reality, teaching MESL is more than a simple mechanical act wherein the problems will disappear as soon as some "ideal" system is found. The social issue is real and must be taken into account. Its solutions will emerge through an increased knowledge of the underlying forces. All the attempts to wish away these forces will accomplish nothing. The goal must be to recognize these social elements and, using them as tools, incorporate them into the already substantial discipline of ESL instruction in general and into MESL programs in particular.

AL-MANAKH

For those still not on the mailing list of AL MANAKH, the fine journal from the University of Kuwait; we publish the table of contents from the latest issue--Vol. 4, No. 2.

To get on the mailing list, write:

The Language Centre
P.O. Box 5486
The University
KUWAIT

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SIMPLY STATED

SIMPLY STATED, the new name for FINE PRINT Newsletter, listed the following publications in Issue 8. SIMPLY STATED is concerned with clarity of language in public and legal documents. It is available from the Document Design Center, A.I.R., 1055 Thomas Jefferson St. N.W., Washington, D.C. 20007. It frequently touches on topics of interest to ESP.

PUBLICATIONS

The Writing Lab Newsletter is an informal means of exchanging information among those who work in writing labs and language skills centers. Brief articles describing labs, their instructional materials, goals, programs, budgets, staffing, services etc. are invited. The cost for those who wish to join the newsletter group is $3.00. Please send material for the newsletter and requests to join to:

Professor Muriel Harris
Editor, WLN
Department of English
Purdue University
West Lafayette, IN. 47907

Another newsletter to note is *The Editorial Eye*, published by Editorial Experts, Inc. twenty times a year. Its pages are devoted to technical comments, instructive articles, and announcements for professional editors. Subscriptions are $45.00 a year but they also offer both introductory and group rates. Address: 5905 Pratt Street, Alexandria, VA. 22310.

Visible Language is a quarterly research journal "concerned with all that is involved in our being literate." Their final number for 1979, Volume XIII, number 4, focuses on graphic design education, graphic theory, and typography. Subscriptions are $25.00 per year. Write *Visible Language*, Box 1972 CMA, Cleveland, OH 44106.

LENGUAS PARA OBJECTIVOS ESPECIFICOS

Issue 6 of Lenguas Para Objectivos Especificos contains the following articles.

John Sinclair —
- Language for Specific Purposes
- Lenguas para Objetivos Especificos

Ron Mackay, M. Bosquet, A. Cyr and N. Spada—
- Theory and Practice in English for Specific Purposes
- Teoria y Practica en el Ingles para Objetivos Especificos

Ann Borkin —
- On some conjuncts signalling dissonance in written expository English
- Acerca de los nexos que denotan disconancia en el lenguaje escrito para exponer en ingles

Odile Regent, R. Duda —
- Une experience de formation complementaire en francais pour des stagiaires latino-americains en France
- Una experienceia de formacion complementaria en frances para ingenieros latinoamericanos en Francia

Guillermo Alcala —
- An ESP program in Mexico
- Un Programma de Ingles para Objectivos Especificos en Mexico

Pamela Urdal —
- CILOE (Curso Introductorio sobre Lenguas para Objetivos Especificos)
- Ciloe (An Introductory Course on Language for Specific Purposes)
- CILOE (Cours d'Introduction a l'Enseignment des Langues pour Objectifs Specifiques)

LENGUAS PARA OBJETIVOS ESPECIFICOS is edited by:
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Margaret Best
Elizabeth Brody
Silvia Gutierrez
Margarita Magana
Marilyn McLean
Ana Ma. Sierra

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FROM THE EDITOR

Forty-four issues ago the EST Clearinghouse set out to identify people and institutions in North America with an interest in ESP. Our expectation was that this was a very limited goal and that ESP in North America would be a subscript to the mainstream ESL, of interest mainly to language training units housed at science and technology institutions. It is tempting to work in a metaphor involving pet rocks - is the American prediliction for fads operating in the way ESP has spread across the ELT lanscape here?

More than the limited goals of 1977 have been accomplished. Four Clearinghouse meetings at national TESOL Conferences, two Summer EST Institutes, a thick book, special issues of the Newsletter from around the world and Clearinghouse support for the establishment of a secure journal devoted to ESP are only the hgihlights of the past few years. Perhaps most important, professionals in over 45 countries have a regular channel of communication with each other. But as Hutchinson and Waters noted in our "ESP at the Crossroads" edition earlier this year, the question still is, "Does it make any sense?"

Examination of the recent comprehensive bibliography of Clearinghouse holdings provides some insight into why this question can still be asked. Very few of the articles and papers are research oriented. While we have compiled a large body of assertions and description, we have not gone very far with valid research. The primary reason may well be that ESL professionals as a body do not hold the types of appointments that allow for pure or scholarly research. Few language institutes, for example, have staff experienced at being research coaches, and such basic social change is clearly not within the mandate of the Clearinghouse. We can do some things, however.

First, the Clearinghouse has been active in obtaining some prime time at TESOL Detroit. The purpose, however, is not to have a fifth national meeting for the Clearinghouse. Sharon Abrams, who is arranging the TESOL programs for the EFL for Foreign Students in English Speaking Countries SIG Group has allocated two hours to examine the question just raised: "Do subject-specific ESP courses make any sense?"

To speak to the question, we have reassembled much of the Northwest School of ESP that initiated the North American movement in the late Sixties. The session will be chaired by Louis Trimble. The panel will include Larry Selinker, Robert Bley-Vroman, and Thomas Huckin, colleagues from the Northwest School now all at the University of Michigan, Ann Arbor. Also on the panel will be Mary Todd Trimble, Grace Mancill, and Marjorie Morray, all names familiar to readers of the Newsletter. In the ensuing months, each will be preparing a position on the question relative to a particular perspective.

In the meantime, you might prepare by reviewing the "ESP at the Crossroads" issue and Phillip King's response in this summer's combined issue (#39 and 40). Having done this, I would appreciate your thoughts on the question. The Newsletter could serve to feed a lively and needed debate over the next few months.

I have a number of reasons for asking for your contributions. The most important is that the question is a vital one. The next is that this is the next to last issue of the Newsletter that I will edit, at least for a while. I will be leaving for Peru in mid-December and not return until next May. The Newsletter will be turned over to the Publications Committee at OSU for the interim. A vital concern and a strong reader response will insure the continuity of the Newsletter.

While announcing my leave-taking from the editorship of the Newsletter, I would like to address the matter that leads me to Peru. For some time, OSU has been arranging various types of exchange relationships with institutions abroad engaged in ESP. I will inaugurate the first of these exchanges by exchanging with a colleague from Peru, Sr. Ricardo Marzo of TRANSLEX, Lima. Sr. Marzo will be taking my place on the staff at OSU. I will be teaching in the TRANSLEX ESP program and will also be part of a team, with Peruvian colleagues from various institutions, who will delliever a series of ESP seminars and workshops at several sites around Peru.

The new year will also see the beginning of an exchange program between OSU and the Banbury English Language Center in Banbury, England. Barbara Dowling, alumna of the 1979 EST Summer Institute, will spend six months in England and OSU will be host to Peter Geall in a straight teaching exchange.

A further exchange involving OSU and ESP on line for 1981 will be with the University of Guadalajara, Mexico. Dr. Marjorie Morray, alumna of the 1978 EST Summer Institute, will work with various members of the University of Guadalajara staff in restructuring their ELT program.

A fourth exchange on line is a one way exchange. Dr. Frank Chaplen of the University of Kuwait will join the OSU staff in 1982 while on his sabbatical, a link that will cement a long-standing relationship between two programs vitally concerned with ESP.

From time to time you will see reports of these exchanges in the Newsletter. The purpose is not to add a travel column, but to provide models for ESP-oriented institutions around the world to engage in exchanges. Once the mechanics are worked out between cooperating institutions, exchanges are perhaps the best way to share expertise. It is the sharing of expertise that was the original mandate of the Clearinghouse; facilitating exchanges may be the largest step we have yet taken in fulfilling that mandate.

LANGUAGE IN INTERNATIONAL BUSINESS:
AN ANNOTATED BIBLIOGRAPHY

Compiled by James Baxter
Language for International Communication Project
Culture Learning Institute
June, 1980

I. Introduction

Given the background of English as an International Language (EIL),[1] this literature search was undertaken with the goal of revealing the manner in which those involved in international business perceive language and communication, particularly in reference to the English language. Characteristic of the EIL perspective is the belief that the English langauge and the culture of the user of the language are linked: a similar link is found in business, with culture being both the culture of the environment as well as the subculture of the business world.

This bibliography is intended for anyone interested in the use of English in international business. It should be of particular value for English langauge teachers who do not have a business background, and who may not be aware of the extensive field of business communications (with a "s"). It is hoped that anyone taking the time to read all of the annotations will be given a capsule view of the broad area of English in international business.

II. Sources/Scope

The following bibliographic sources were searched: *Business Periodicals Index*, *MNC: the ESCIM Guide to Information Sources*, *The Transnational Corporations and the Third World: CoDoC Bibliography*, ERIC data base, bibliographies of the items annotated, and library subject headings: multinational business, multinational corporations, international business, personnel management, international communication, English language: business English.

Scope: Items falling under the rubric of 'business English' (e.g., how to write letters, memos, etc.) have for the most part not been included. Items concerning 'ESP' (English for Specific Purposes) have also not been included--persons interested in ESP may refer to the following for information: Inman, 1979, bibliography (annotated here); Mary Todd Trimble, Louis Trimble and Karl Drobnic (Eds.), *English for Specific Purposes: Science and Technology* (Oregon State University: English Language Institute, 1978), bibliography; *English for Specific Purposes* (newsletter: a service of the English Langauge Institute, Oregon State University, Corvallis, Oregon).

Strict adherence to 'English in international business' as a search category would yield very little, for very few people, whether in business of langauge study, focus on this topic per se. It became apparent quite early in the compilation of this bibliography that the scope would have to be adjusted so as to select items which together would provide an overall context within which to locate English in international business. Language training in business is most often depicted as a component in the overall management training process. For this reason, many items were selected for their value in giving insight into the relation of English-language use to cross-cultural and business training. Not all items are drawn from the international sector: several were selected, although referring primarily to native speakers of English in an American context, because they reflected general characteristics of business communications. The use of English in international business is an instance of intercultural communication and items were chosen in order to provide a business-oriented perspective of this area. The use of English cannot be fully understood without relating it to the use of other languages which function internationally, and certain items dealing with this topic have been included. In addition, items concerning English native-speaker expatriates have been included since such speakers of course figure in the use of English in international business.

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[1] The concept of EIL is an area of continuing research at the East-West Culture Learning Institute. Background reading: Larry Smith, "English as an International Auxiliary Language," *RELC Journal* 7(2): 38-53 (1976); Larry Smith, "Some Distinctive Features of EIIL vs. ESOL in English Language Education," *Culture Learning Institute Report* 5(3): 5-11 (1978); Larry Smith (Ed.), English for Cross-Cultural Communication (London: The Macmillan Press, Ltd., 1980).

Thus, what emerges from this bibliography is not an exclusive focus on one function of the English language. Instead, a context within which to locate the use of English in international business is provided, built around topics such as management training, cross-cultural training, business communications, communication barriers, problems encountered in the use of English, adaptation to new environments, etc.

This bibliography also reveals a lacuna. The disciplinary segmentation of language and communication study/teaching is somewhat arbitrary. This literature search, although admittedly limited in extent, would seem to indicate a serious gap between the English-langauge teaching field, including ESP, and that of business communications. Each field has its own journals, jargon and viewpoints. Businesspersons employ notions such as organizational communication, upward and downward communications, information networks, noise, the culture of business, and communication as a managerial tool. Yet such concepts are rarely found in the English teaching field. On the other hand, many of the items included here show that in discussions of management training and preparation for international assignments, there is often only token reference to language training. In sum, it is surprising that given the extensive role of English in international business, so few writings accord serious attention to that role.

Although the annotations are meant to be descriptive, it should be clear from the nature of the scope of this bibliography that selection has had to be evaluative. Two biases may be seen: firstly, the majority of the items represent an American point of view. This is inevitable since most of the authors are American. Secondly, the number of items dealing with U.S. - Japan relations is relatively large. This, however, reflects the fact that over the past several years a large percentage of articles appearing in American business publications have been about Japan.

EDITOR'S NOTE: Copies of the Baxter Bibliography (20 pages) are available from the Clearinghouse for the cost of postage and printing - $1.08.

WISSENSCHAFTSSPRACHE UND GESELLSCHAFT

Frühjajrskurs vom 9. - 23. März 1981 in Dubrovnik,
INTER-UNIVERSITY CENTRE of postgraduate studies

Kursdirektoren: Theo Bungarten (Universität Hamburg)
Michele Cortelazzo (Universidata di Padova)
Wolfgang Steinig (University of Bangor/Wales)

Kursbeschreibung

Eine der Ursachen für die immer wieder festzustellende Kritik an den Wissenschaften liegt im Sprachgebrauch ihrer Repräsentanten. In der Form wissenschaftlicher Spezialsprachen haben die in den einzelnen Wissenschaftsdisziplinen tätigen Sprecher im Lauf der Geschichte ihres Faches ein Kommunikationsmittel entwickelt, das ihren kognitiven, kommunikativen und sozialen Bedürfnissen entspricht. Da ihre Bedürfnisse von denen anderer Sprechergruppen differieren, entwickelte sich die Wissenschaftssprache zu einem gruppenkennzeichnenden Soziolekt und zugleich zu einer Sprachbarriere für Außenstehende.

Angesichts der Bedeutung der Wissenschaften für die Begründung, Erhaltung und Fortentwicklung einer modernen industriellen Gesellschaftsform hat die Gesellschaft einen berechtigten Anspruch auf Information und Vermittlung wissenschaftlicher Arbeitsverfahren und Erkenntnisse, um die Folgewirkungen der Forschungsergebnisse in ihren möglichen technologischen Anwendungen abschätzen und über sie rechtzeitig politisch entscheiden zu können.

Auf dem Hintergrund dieses gesellschaftlichen Interesses nach Wissenstransfer gewinnt die Kommunikationsform in den Wissenschaften und zwischen Wissenschaftler und Laie eine kritische Funktion. Die Aufgabe des Kurses ist es, von einer pragmatischen Fachsprachenkonzeption aus allgemeine, überdisziplinäre Merkmale von Wissenschaftssprache zu gewinnen und die Fromen des Sprach- und Informationstransfers zum Laien und zur informationsbedürftigen Gesellschaft zu untersuchen.

Eine emanzipatorische Aufgabe der Beschäftigung mit dem Sprachgebrauch in den Wissenschaften liegt in dem Verständnis der disziplineigenen Sach- und Sprachbarrierenprobleme, aber auch in der Entlarvung möglicher Immunisierungsstrategien in wissenschaftlicher Sprache und ihrer Prestigefuntionen in Politik, Medien, Werbung und privatem Bereich.

Im Kurs werden die Kriterien der Analyse und Erklärung sowie die Problemstellungen an exemplarischen Beispielen spezialsprachlichen und populären Sprachgebrauchs entwickelt und auf dem Hintergrund bisheriger fachsprachtheoretischer Untersuchungen diskutiert. Die Ergebnisse der linguistischen, kommunikationstheoretischen und soziologischen Detailanalysen sollen Lösungsvorschläge bereitstellen für den Abbau wissenschaftssprachlicher Barrieren, für eine verbesserte Kommunikation zwischen Wissenschaft und Gesellschaft und damit für eine Erleichterung des Wissenstransfers.

Themenkatalog

Zur Beschreibung des wissenschaftlichen Sprachgebrauchs:

- Gibt es einen typischen wiss. Sprachgebrauch?
- Wissenschaftssprache als Spezial- und Fachsprache und ihr Verhältnis zur Standardsprache
- Wissenschaftssprache und Alltagssprache: Differenzierungskriterien, Abhängigkeiten und wechselseitige Einflüsse
- Probleme der Terminologie (Terminologieeinführung, Normierung, wissenschaftsinterne und -externe Funktionen)
- Wissenschaftssprachliche Syntax
- Formen der Argumentation und Erklärung in den Wissenschaften und im Alltag
- Zur historischen Entwicklung von Wissenschaften und ihren Sprachen

Philosophisch-erkenntnistheoretische und kommunikationstheoretische Aspekte

- Korreleationen zwischen Sprache, Denken und Erkenntnisprozeß in den Wissenschaften
- Das Verhältnis von Sprache und Realität in den Wissenschaften
- Objektivität und Subjektivität als Kriterien der wissenschaftlichen Kommunikation
- Die Funktion von Formalisierungen für den Wissenschaftler
- Ausdrucksgenauigkeit und Verständlichkeit

Sprachsoziologische, gruppensoziologische und politische Aspekte:

- (Sprachliche) Immunisierungsformen gegen Kritik in der Wissenschaft und Möglichkeiten ihrer Durchbrechung
- Das Problem der Entpersönlichung ("Deagentivierung") im wissenschaftlichen Sprachgebrauch
- Wissenschaftler und gesellschaftliche Verantwortung
- Wissenschaftssoziologie
- Wissenschaftssprache als Gruppensoziolekt: Ihre Funktionen für die Identifikation und Konsitution einer Spezialistengruppe
- Wissenschaftssprache als Jargon
- Sprachlich bedingte Wissenschaftsgläubigkeit und Wissenschaftskritik gesellschaftlicher Institutionen und Gruppen
- Wissenschaftlicher Sprachgebrauch als Konfliktpotential in öffentlichen Diskussionen
- Sprachliche Prestigeanleihen bei den Wissenschaften im gesellschaftlichen und privaten Bereich

Institutionen, sprachliche Formen und Funktionen des Wissenstransfers; das Barrierenproblem:

- Kommunikationsbedürfnisse zwischen Wissenschaftler und Laie
- Möglichkeiten und Formen der populärwissenschaftlichen Darstellung wissenschaftlicher Ergebnisse
- Brauchen wir den Wissenschaftsvermittler?
- Die Rezption von Wissenschaft in den Massenmedien
- Formen der Wissenschaftsberichterstattung
- Der Wissenschaftler als Popularisator
- Wissenstransfer in den Naturwissenschaften
- Problemme des Wissenstransfers: Wissenschaftssprache als Hindernis?
- Ist das Barrierenproblem ein sprachliches oder fachliches: Probleme der Sprach- und Fachkompetenz beim Wissenschaftler und Laien
- Die Syntax der Wissenschaftssprache als Sprachbarriere für den Laien

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ESPMENA, New Policy

ESPMENA Bulletin has announced a new policy after a considerable delay in their publication schedule. First, they have a new numbering system. The latest issue to appear is NO. 1, 1979. They will henceforth be numbered by the year. There will be two issues per year instead of three.

ESPMENA is available by subscription to those in areas where this is not prohibited by currency controls. The yearly subscription price is £Stg2.00 or $US4.00., payable by hard currency check or Int'l Money Order to Gillian Hashim. The address is ESPMENA, English Language Servicing Unit, Faculty of Arts, U. of Khartoum, PO Box 321, Khartoum, The Sudan.

Back issues are still available through the Clearinghouse at cost ($1.00 US per issue), and will continue to be so. Issues from #10 onwards are available on microfiche from ERIC Clearinghouse, Center for Applied Linguistics, 3520 Prospect St., N.W., Washington, D.C. 20007, USA.

EDITOR'S NOTE: Readers - Please note that the bibliography below is not the same as the Baxter Bibliography cited on Page 2 of this issue.

SOME PUBLISHED BUSINESS ENGLISH TEXTS FOR ESL STUDENTS

Ann Johns, San Diego State University

Cornelius, E.T., and W.D. Sheeler. Special English: International Trade. Collier Macmillan, 1966.

This intermediate text contains fourteen lessons centered around formal register dialogues on international trade (e.g., "Decision to License," "Investing Abroad"). Tapes in American English accompany the course.

Exercises involve the use of vocabulary only. There is no grading or mention of grammar, sentence complexity or discourse type.

Costinett, S. American English for International Businessmen. Silver Spring, Md. Institute of Modern Languages, 1973.

Consisting of twelve chapters (123 pp.) this text is basically a series of dialouges and suggestions for self-instruction through the use of records or audio-lingual drill (Backward buildup, repetition, substitution).

Gordon, I. Basic Business Letters. Heinemann, 1973.

A valuable source for the style and form of British business letters. Includes most formal letter types: inquiry, reply, order, complaint and application.

Hacikyan, A.J. and M. Gill. Business in English. New York: Regents, 1980.

One of the newest and best publicized of ESL business texts, this one volume intermediate or advanced level course consists of twenty-five units, each of which presents a situation in the life of a businessman working for an engineering company.

Exercises, based upon the audio-lingual model, consist of comprehension questions, sentence completion, question formation, substitution drills, role playing and controlled business writing.

Howatt, A., J. Webb and M. Knight. A Modern Course in Business English. Oxford: Oxford University Press, 1967.

An "intermediate refresher course" for adult students engaged in commercial life or interested in business, this course consists of four books: class texts, reading texts, programmed units and language laboratory texts.

Class texts are contextual, based upon everyday business situations in Britain. Programmed texts are grammar-based, with a particular emphasis upon modals. Reading texts include academic readings followed by comprehension and vocabulary exercises. Laboratory texts drill grammar points and provide experience for active listening.

The course is situationally-based and uses the audio-lingual method.

McCarrick, J.H. and P.D. Carmichael. A Functional Approach to American Business English. American Language Institute, San Diego State University, 1979.

Divided into four units of an average of 40 pages. this high intermediate text is designed for businesspeople or students who must improve their command of written business English and the spoken registers required in social and business situations. Grammatical items are not isolated; instead, the intent (function) of the communication is the focus.

Exercises include context guessing of word meanings, analyses of written text, role play, dialogue completion, analyses of style and of forms of letters and memorandums.

McKay, S. and L. Rosenthal. Writing for a Specific Purpose. Englewood Cliffs, N.J.: Prentice-Hall, 1980.

Although this high-intermediate writing text is not designed specifically for the business students, it focuses upon functions which business writing students are required to perform (e.g., clarifying, asserting, informing and substantiating). Also included are exercises for difficult grammatical items (e.g., use of modals, passive voice with conditionals) and punctuation review, especially of commas. Examples of business letters and memorandums also appear.

Pearson, C. Getting Down to Business in English. Heinemann Educational Books, 1975 (Student and Teacher's Books, I and II).

Consisting of 50 short lessons, these texts are designed for the high beginning and low intermediate student who is interested in both formal and informal spoken styles of British English.

Each lesson opens with a reading passage and conversation (also on tape) followed by a discussion of a grammar point and selected vocabulary. Choral reading and pattern practice, written homework exercises and letter examples complete each lesson.

Trimble, L. and M.T. Trimble. English for Multinational Business (Intermediate Level). Washington, D.C.: International Communications Agency, 1979.

The ten chapters built around a formal reading (e.g., "Transportation in Multinational Business") consist of vocabulary comprehension and discussion exercises, grammar exercises and questions on the manner in which the discourse is developed.

Also included are narratives which illustrate uses of informal English in business.

Featured items in exercises include: affixes, connectives, definition and classification as rhetorical modes, indirect speech, noun compounding, modals, that as a relative and demonstrative, the passive and past perfect.

Wise, S. Essentials of Management. Washington, D.C.: American Language Academy, 1979.

This text is intended for intermediate students with little knowledge of management. Its ten units, averaging 10 pages in length, consist of a reading preparation section, introducing the subject (e.g., "The Role of Management," "Making Decisions," "Leadership"), vocabulary review, grammar study, controlled oral practice, reading skills exercises (e.g. skimming) and the reading. A good introduction to flow charts appears in one chapter.

Featured items include: placement of adverbs, affixes, noun phrases and compounds, choice of infinitive or gerund, the passive, relatives, connectives, the subjunctive.

BOOK REVIEW

Hacikyan, A. Jack, and Marilyn Gill
Business in English: A Communicative Skills Approach. New York: Regents, 1980.

The authors of Business in English recognize that "the language of business is vital to many and useful to nearly everyone." All too often, they imply, language texts omit the everyday language of working life which a student of English needs to know in business situations. Most Canadians can easily assent to the argument. In fact, how often does *la plume de ma tante* leap to mind when the learner of French wishes to ask: "Is there a possibility of promotion if I accept this position?" Without the correct vocabulary, it is impossible to engage in conversations dealing with one of the most important aspects of one's life—earning a livelihood.

To facilitate the use of English in common, everyday business discussions, the text provides a series of 25 dialogues which illustrate correct and precise usage. Although occasionally stilted, the language is, in the main, natural, typical and realistic. In particular, the emphasis on idiomatic expressions is commendable. Often texts stressing idioms isolate the key phrases from their usual contexts, thereby weakening the impact of the idiom. In Business in English, the idiomatic expression is revealed and emphasized unobtrusively in a dialogue, in a natural and usual context, and therefore the phrase retains its wholeness of meaning and nuance. Furthermore, this book does not evade the jargon of the business world, but, rather, attempts to place it in the right context at the right time. The English which results, then, is a smooth, fluent, practical business language that is a clear and accurate alternative to the gibberish which results when business terms are unjustifiably ignored.

Each dialogue is followed by a series of oral and written exercises which will expand the learner's vocabulary, grammar and comprehension. Of particular note here is the 'Dialogue Summary" which is appended to each passage. In two or three sentences, the entire discussion is condensed to emphasize the gist of the dialogue. By analyzing these portions of the text carefully, an instructor can demonstrate to the learner the fundamental differences between direct and indirect speech. Furthermore, the short summaries are often excellent examples of conciseness, brevity and accuracy. In other words, the summaries of the dialogues can be used to illustrate how a report about a discussion of business matters can be presented in a brief, but forceful, manner.

In addition to the exercises, Business in English provides an answer key to every question. If it were to be used in the classroom, then, the instructor would have to supplement the text with his own exercises and questions. As a supplementary text, or as a self-instruction manual, however, Business in English is ideal because the answer key also provides grammatical explanations for particularly difficult exercises. Such explanations about the answers are usually lacking in self-instruction manuals, and, for this reason, this text should receive close attention by those recommending study guides to learners at the intermediate level. Few books clarify why certain aspects of English usage have to be considered when checking if an answer is correct or incorrect. In one sample answer, for example, the authors have taken the time to clarify the distinctions of usage underlying "must have," "may have," and "couldn't have," so that the learner of English understands why the answer is right or wrong rather than simply that the answer is right or wrong. If Business in English has a weakness, it rests in its failure to provide such helpful explications for every answer.

High schools, colleges and universitites which offer a business program will find Business in English a worthwhile and suitable resource text which stresses the fundamentals of correct and accurate English. It is particularly recommended for those courses which attempt to teach the English speaker at the intermediate level the proper and effective use of the specialized language of the business world.

Ed Jewinski teaches English at Wilfrid Laurier University.

Oxford has E.S.P.

Reading and Thinking in English

H.G. WIDDOWSON

Reading and Thinking in English is a series of four books forming a course in reading comprehension for students of English as a Foreign Language. It prepares the student for the specialist English met in textbooks, reports, and journals. The subject matter is varied, so that the student becomes accustomed to reading and thinking about specialized material without being biased toward any one discipline. The complete series takes the student from a basic level of English to a level at which authentic, unsimplified texts can be understood. The course is graded but has been designed to allow entry at any stage. The series consists of:

CONCEPTS IN USE *(near beginner)* extends students' basic knowlege of grammar and vocabulary and how they are used to express fundamental concepts. It also develops their awareness of how passages are built on combinations of these concepts.

EXPLORING FUNCTIONS *(pre-intermediate)* deals with the use of concepts in the communicative functions of academic writing.

DISCOVERING DISCOURSE *(intermediate)* develops students' awareness of how the devices of language are used to express communicative function. It also shows how passages are built on combinations of simple functions.

DISCOURSE IN ACTION *(advanced)* extends students' knowledge of the functional organization of written English and develops their ability to handle information found in varied types of real academic discourse.

Teacher's Editions with answer keys are available for each book.

Oxford University Press

200 Madison Avenue New York, New York 10016

BOOK REVIEW

Better Listening Skills
Revised Edition, Jean Sims and Pat Wilcox Peterson. Prentice-Hall, 1980.

One of the first textbooks reviewd by this Newsletter was BETTER LISTENING SKILLS. Originally marketed as a videotaped listening to lectures series, BETTER LISTENING SKILLS has been taken over by Prentice-Hall and reissued in an attractive new edition. It is now available on audiotape, which will make it accessible to those who do not have videotape capability. The workbook has been revamped and appears considerably easier to use than the original bulky edition.

Our first review praised BETTER LISTENING SKILLS as one of the best listening skill packages on the market and the intervening years have not changed our opinion. Users should be aware that there is more than one style of lecture in the scientific/technical classroom, and BETTER LISTENING SKILLS does not attempt to cover the gamut. Rather, it addresses a formal lecture style. If your students are targeted for situations where they will need to listen to concentrated, fact-filled lectures, BETTER LISTENING SKILLS will be an immense help to them.

The real strength of BETTER LISTENING SKILLS is in the exercises that accompany the lectures. Extremely well thought out, they expoit many aspects of the lectures and provide the student with systematic training in the basic skills of academic lecture listening. With teacher effort, they can also be used to teach seminar skills.

The tapes, either audio or video, are an integral part of the package; the book itself is a student-consumed workbook. With the quiet resurgence of language labs and the spread of technology in language teaching currently taking place, BETTER LISTENING SKILLS should find a secure niche in many of the major intensive English programs.

BOOK REVIEW

Skills for Reading With Extracts From New Scientist
Keith Morrow, Oxford University Press, 1980.

All units are based on authentic texts selected from NEW SCIENTIST. In some cases articles have been abridged, but they have not been re-written. There are 20 units, arranged in sets of five. Within each set the units follow the same pattern but there are differences from set to set. Generally speaking there is a progression of complexity of exploitation from set to set; similarly there is generally a progression of text length from unit to unit within a set.

In sets 1-3 (Units 1-15) units have two parts. First there is the complete text on which the exercises are based. This is followed by exercises focusing in turn on Recognition; Structuring and Interpretation. In set 4 (Units 16-20) there is only one part which consists of exercises in Structuring and Interpretation.

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English for Specific Purposes

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FROM THE EDITOR

There is a certain license that comes with a last editorial. Generally, it allows the editor to address matters from a more personal perspective than normal. So, as I turn over the Newsletter to new hands and depart for Peru, I would like to address what seems to be the inevitable.

One needs only to compare the presentation titles of TESOL Miami (1977) with those of TESOL Mexico (1978) to get a feel for the swiftness with which ESP spread through the profession in the United States. A lot has been written and said about ESP. In short, a literature has been created. The creation of a literature carries with it certain pitfalls. Most notably, it documents shortcomings.

ESP, of course, has had its detractors all along. But before there was such a large body of literature, it was a much more nebulous target. The literature makes a legitimate target. Some legitimate questions are being asked. Cowan, for example, will ask in a forthcoming article why we so often make the leap from discovery to pedagogy without first checking if what we have discovered needs to be taught. Perhaps traditional English programs already teach a particular point adequately. Swales and Ewer will ask some searching questions about the nature of ESP textbooks. Some woeful inadequacies will be pointed out. Another target is the lack of a published data base for much of what has been asserted about ESP. Without the data base, serious researchers cannot move forward. What is a researcher to do when the claims of a colleague do not replicate? Without the data bases, it is difficult to find out the reasons for the differences--but it is relatively easy to show that a claim is falsifiable.

After several years of hearing about ESP and seeing it instituted in classes, the profession will be quite correct in taking a critical look at just what ESP has and has not accomplished. This is in the natural order of events and should be welcomed by those concerned with ESP. In fact, it is a very healthy sign that people who have long been involved in ESP are among those who are already in the forefront of this period of assessment.

The initial mandate of the EST Clearinghouse and Newsletter was to find out who was doing what in the area of ESP and provide a communication link. It seems to me that we are now in another stage, and the service the Clearinghouse and Newsletter can provide is different. While it should still be a conduit of information and communication—and for many around the world it is the only regular contact with ESP professionals—the Clearinghouse should help shape the assessment of ESP that is on the immediate horizon.

The Clearinghouse is already directly involved in this in two ways. Both have been announced previously. In the November issue, I announced the "EFL for Foreign Students in English Speaking Countries SIG" was working with the Clearinghouse in arranging a prime time panel at TESOL Detroit. The Panel will make the Hutchinson/Waters "ESP at the Crossroads" Special Issue (#36) the basis of its discussion. I therefore once again encourage readers to review Issue #36 and the reply by Philip King in Issue #39/40. Your comments and thoughts, if they can reach the Newsletter soon, will help shape the discussion. Also, it will help you attend the Panel Discussion as informed discussants.

The Clearinghouse has also encouraged the formation of THE ESP JOURNAL, An International Journal of English for Specific Purposes, at

American University. Dr. Mancill, the editor, has assembled an impressive editorial advisory board. It is in such a journal where the debate that will constitute the assessment period for ESP should occur. A journal sets critical standards and subjects submission to serious review. It is a very different forum than the Newsletter. If nothing else, the editorial board of THE ESP JOURNAL is such that publication in the journal will be a mark of accomplishment suitable to satisfy a certain part of tenure requirements. That alone should encourage a certain number of careful studies.

I thus encourage the readership to continue to submit announcements, news of interest, and short, descriptive articles (up to six pages, typewritten, double-spaced) to the Newsletter. It is still vital that we know of each other and of each other's work. Those who wish to do Special Issues are also encouraged to query with a short description of the focus of such an issue. Two Special Issues are already on line for 1981. But I also encourage you to think of writing in the more carefully controlled, studious fashion suitable for journals. It is at the level of journals that the claims and counterclaims of ESP will need resolution. Dr. Mancill will be happy to send you guidelines for submitting to THE ESP JOURNAL. Write: Dr. Grace S. Mancill; Editor, The ESP Journal; ELI, The American University, Washington, D.C. 20016; USA.

* * *

(Editor's Note: see Issue #39/40 for Part A of this paper. Part A deals with gerunds.)

NON-FINITE VERB FORMS IN TECHNICAL ENGLISH LITERATURE

PART B: INFINITIVES

By Francoise Salager, University of the Andes Graduate School of Medicine, Merida, Venezuela

Because infinitives are associated with FTE lexical units and because they represent an elyptic substitute for longer phrases, infinitives can be considered as another TE register marker. They can be classified into 3 different categories

A. Infinitives with to be

The verb "to be" may be assigned two different meanings: (1) its basic form is equivalent to "to appear", "to be found" and (2) the second form corresponds to the modal verb "must". This is why all the examples where "to be" is encountered, may be grouped in two categories—each having a certain number of formal differential signs. One of them is the infinitive. Where "be" is employed in its basic meaning, only the infinitive of the active voice is used whereas where the modal sense is used, the infinitive of the passive voice is employed. The following instances illustrate this point.

Basic meaning: $NP + be + inf. V_{act} + X$

- The function of the polarity reversing socket is to provide voltages of proper polarity . . .
- One approach is to use the grown junction or double doping method.
- The purpose is to change the composition of the melt by adding . . .

Modal Meaning: $NP + be + inf. V_{pass} + X$

- The antenna is to be switched from the receiver imput.
- The reactant is to be dissolved in pure water.
- The bias is to be applied to the switching transistor.

Another differential formal sign (used when "to be" is taken in its basic meaning) is related to the frequency of occurrence and the semantic field of the subject of the sentence. In the majority of the cases, these nouns are abstract and indicate a method, an influence, an aim or a means. The following list includes some of them:

purpose
method
technique
objective
effect
procedure
approach
problem
way

These data allow one to note the semantic restriction of the subject in those sentences of type $NP + be_b + to\ V + X$ where NP corresponds to a noun phrase, be_b to the basic meaning of "to be", to V the infinitive of the following verb, e.g.,

The procedure (NP) was (be_b) to disperse (to V) starch (X) in the solvent medium.

The effect (NP) is (be_b) to cause (to V) a deviation (X).

The purpose (NP) of the experiment is (be_b) to select (to V)...

B. Other lexical items governing infinitives

Similar syntactical relationships are encountered with verbs other than "to be". The model

$$NP + V_{act} + inf. + X$$

is semantically restricted. The component V_{act} corresponds to the following verbal groups:

1. have, ought, need
2. fail, manage
3. begin, continue, become
4. tend, intend, try, attempt, seek
5. allow, cause, make, permit, enable

Here are a few examples:

- The diode bridge . . . causes Q701 to turn on.
- . . . that will cause . . . to be driven into saturation.
- The light becomes dimmer to reduce excessive glare as daylight changes to darkness.
- . . . and receiver oscillators thus allowing them to operate.
- The high pass filter passes some higher frequency noise component which tend to drive . . .
- . . . is applied to the varactor to cause a change in capacity.
- . . . this variation in turn causes the frequency to change . . .

The nouns which trigger an infinitive bear a modal connotation. The most frequent are: "attempt", "failure", "capacity", "tendency".

Some adjectives and adverbs frequently govern an infinitive, e.g.; "able", "sufficient", "necessary", "enough", "too", e.g.

- . . . which supplies sufficient gate current to fire the silicon controlled rectifer.
- The polarity of an input signal necessary to increase conduction . . .
- . . . not large enough to scatter light.

C. Infinitives after impersonal expressions

The anticipatory "it" corresponds to 3 syntactical constructions. Let us consider the following structures:

$$\text{Inf.} + \text{NP} + \text{be} + \text{Adj.}$$

- To avoid interference from these harmonics is difficult.
- To set the deviation for each channel is necessary
- To achieve exact stoichoimetry...is difficult.

By applying the "it transformation", we get

$$\text{it} + \text{be} + \text{Adj.} + \text{Inf.} + \text{NP}$$

- It is difficult to avoid interference from these harmonics.
- It is necessary to set the deviation.
- It is difficult to achieve exact stoichoimetry...

If only the verbal part and not the whole subject is transposed after the predicate, then we get the pattern:

$$\text{NP} + \text{be} + \text{Adj.} + \text{Inf.}$$

- Interference from these harmonics is difficult to avoid.
- The deviation for each channel . . . is necessary to set . . .
- Exact stoichoimetry is difficult to achieve.

The interesting thing to note here is that the lexemes involved in such constructions happen to belong to the FTE layer (is, seem, become, possible, necessary, difficult, desirable, important, useful, convenient . . .) which suggests that these types of structures are especially common to TE literature.

The second model involves the V_{pass} transformation, e.g.,

- We assume that the material solidifies under conditions where . . .

(which is equivalent to: "It is assumed that the material. . .")

$$\text{NP}_1 + V_{act} + \text{that} + \text{NP}_2 + \text{VP} + X$$

is transformed into

$$\text{NP} + V_{pass} + \text{Inf.} + X$$

- The material is assumed to solidify under conditions where . . .

The model resulting from this structure shows its fundamental lexical feature: the component V_{pass} can only be made of those lexemes which trigger the preposition "that". Thus, the component V_{pass} is lexically restricted. Most frequently, we find:

V_{pass}: find, assume, expect, show, say, consider, require, know, take, calculate, suppose, estimate.

The third and last model represents an analogous structure which also involves an anticipatory "it". We observe the following transformation:

$$\text{NP}_1 + V_{act} + \text{Inf.} + \text{NP}_2 \longrightarrow$$
$$\text{it} + V_{act} + \text{that} + \text{NP}_2$$

- A p-n junction seems to occur at a grain boundary . . .
- It seems that the p-n junction occurs. . .

Similar transformation are most frequently observed with:

V_{act}: appear, seem, likely, prove, turn out.
Inf.: to be, to have, to give.

In short, the basic formal characteristics of the models governing infinitives are:

- possibility of a transformation into a complex sentence using the pronoun "it" as a formal subject;
- the use of verbs which may govern the preposition "that" as the second component in V_{pass} or V_{act}. These features allow us to restrict these structures to the following syntactical structures identical in form, viz.,

NP is obliged to VP
NP is allowed to VP
NP is used to VP
NP tends to VP
NP combines to VP

Thus, in TE literature, the non-finite verb forms are governed by a certain number of definite FTE lexical items (whether they be nouns, adjectives, verbs or prepositions) which in turn explain the high frequency of gerunds and infinitives in TE literature.

These structural models (substitutes for longer sentences) prove once again the conciseness of technical prose and must therefore be considered typical of this literary genre and viewed as the central syntactical structures of TE literature. Because of the complexity of the syntactical relationship of their components, they deserve the most detailed examination which should have a direct bearing upon the methodology used to teach them.

FOOTNOTES

[*] GE - General English based on Kučera's and Francis' Computational Analysis of Present Day American English.

[**] FTE is made up of those lexical units which are both frequently occuring and widely spread across technical disciplines.

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TECHNICAL WRITING: PSI METHOD

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Jack Keenan
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Introduction

Increasing numbers of international students are coming to the United States to study Engineering; in fact, Engineering is the most popular field of study among international students at American colleges and universities (IIE Reports, 1978). West Virginia University is one of many universities that reflect this increase in international students. It has approximately 350 international students of engineering, about half of which are graduate students.

In the summer of 1977, the University investigated the feasibility of expanding its EFL program to accomodate the growing number of international students. Faculty and international students were interviewed regarding ESL needs. Because of the large number of international students studying engineering, the engineering faculty and students were interviewed in depth. The engineering faculty consistently commented on the students' low level of English skills, particularly their low level of writing skills in lab reports, research papers, letters, and theses.

In the fall of 1977, representatives from each engineering department met with the ESL faculty to consult in the development of a technical writing course. The engineering faculty cooperated in the formation of the course by supplying copies of student reports, course requirements, and textbooks; all of which were eventually used in the course. They also reviewed technical writing textbooks, commented on the course construction, and eventually advised their students to take the course.

In selecting a course design, two major concerns were:

1) meeting the individual needs of students with differing English levels and problems
2) directly relating the technical writing course to their engineering courses so that it would provide a quick and noticeable improvement in the quality of their writing.

It was primarily because of these two concerns that the Personalized System of Instruction (PSI) was selected. At that time, many of the additional benefits of using PSI in an ESL class had not been fully realized.

PSI, as used in technical writing, is distinguished by: 1) mastery learning and the use of small units which specify what the student is to learn, 2) unit study guides which include writing assignments, 3) frequent evaluation, 4) self-pacing which allows individualized time for learning, and 5) the use of proctors to maximize individual attention and assistance available to each student. Through the use of proctors, students receive individual help on their particular problems at their writing level, thus meeting the first concern of differing English levels. The self-pacing component of PSI also allows for differing English levels; the advanced student can finish early and the less-advanced student can progress slower and receive additional help from the proctor. In writing the study guides, material from the WVU College of Engineering was used so that the questions and writing assignments related to the students' engineering courses, thus meeting the second concern. The mastery component of PSI also works toward the second concern in that it requires demonstration of the students' grasp of the material; there is no sliding through.

Course Construction

The technical writing course is divided into twelve units--four grammar units and eight units based on the text, Reporting Technical Information by Kenneth Houp and Thomas Pearsall. Each unit is composed of a reading assignment, 20-30 study questions on the reading, appropriate writing assignments, and three equivalent forms of a unit quiz. When a student completes both the written assignments and the study questions, he takes a quiz. If the student obtains 90-100% on the quiz, he has mastered the material and this mastery is indicated on a cumulative progress chart which is attached to the student's quiz folder. If a student does not obtain 90%, he resumes studying and when ready, takes a different form of the quiz without penalty (Figure 1).

Study Guides

In using PSI to teach ESL, the quiz marks a student's passage to the next unit, but it is not the sole focus of the course. An essential component is the student's written work in the study guide. Each study guide contains 20-30 questions and problems from the unit reading assignment that necessitate student implementation of material, not memorization. An example of such implementation is:

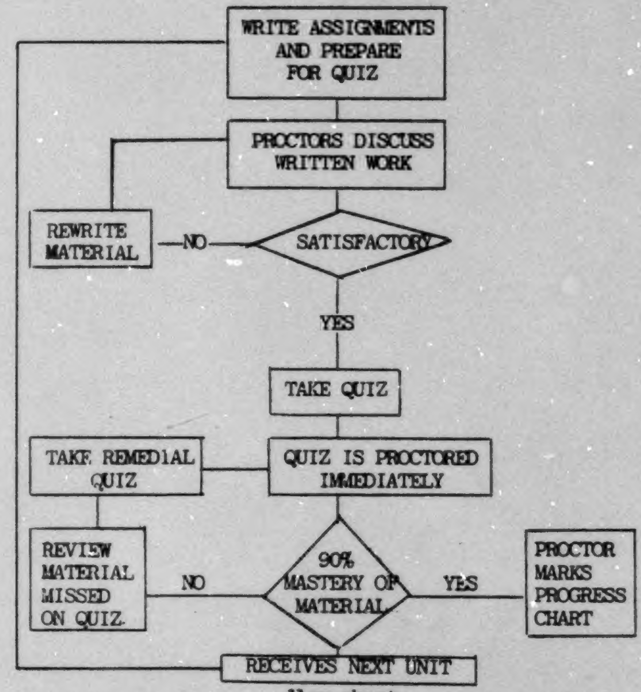
> Your company has recently developed a new deep water oil rig which utilizes a completely new system of drilling. Your job is to write a report on the subject which will be read by the president and board of directors. How much can you assume these people know about deep water drilling? Why? What specific things about the new oil rig would you want them to know?

Each study guide also includes several writing assignments that students complete and discuss with a proctor before taking the unit quiz. The following writing assignment from the unit on prose elements of a technical report serves as an illustration:

1. On a separate sheet of paper, write a letter of transmittal to one of your professors to whom you are submitting a paper. You may use the form in the textbook or check the form that your department recommends. Show this letter to a proctor before taking a quiz. The letter should be neatly written.
2. Write a descriptive abstract for a paper that you have written. You may refer to your departmental guidelines. Show the abstract to a proctor before taking a quiz.
3. Write a statement of purpose for a report that you are writing or for a report that you plan to write. Show the statement of purpose to a proctor.

The study guides move from tight control of student responses to little control, from rule identification to rule implementation, from defining an abstract to writing an abstract.

Figure 1:
Procedure for Student Progress Through Course


WRITE ASSIGNMENTS AND PREPARE FOR QUIZ
PROCTORS DISCUSS WRITTEN WORK
REWRITE MATERIAL
NO
SATISFACTORY
YES
TAKE QUIZ
TAKE REMEDIAL QUIZ
QUIZ IS PROCTORED IMMEDIATELY
REVIEW MATERIAL MISSED ON QUIZ
NO
90% MASTERY OF MATERIAL
YES
PROCTOR MARKS PROGRESS CHART
RECEIVES NEXT UNIT

-flow chart-

Proctors

The proctors are graduate and undergraduate native English speakers who are studying to become ESL instructors. They are reimbursed with credits in fields such as ESL Methodology, English, or Education. As shown in Figure 1, the proctors play a vital role in a PSI writing course. They have three main responsibilities: 1) effectively discussing student work, 2) correcting quizzes, and 3) recording progress on the students' progress chart.

Discussing students' written work is the most important and most difficult aspect of the proctor's task. Rather than simply providing the correct answers, their role is to ask questions that help the students arrive at the corrections themselves. Examples of such questions or responses are:

> Can you think of another way to say this?
> Read this carefully and try to figure out what's wrong. What tense are you using?
> Is this word countable or uncountable?
> Check the spelling of this.

Proctors also make note of ambiguous study guide and test questions, rewriting them for the next class; thus, the course is continually being revised. They also refer students to the text or to supplemental material when necessary. An additional function of the proctor is to help students with technical reports they are concurrently doing in their engineering classes. If proctoring is to be effective, the proctor/student ratio needs to be small or about 5:1.

Conclusion

The success of the technical writing course can be measured by student evaluations, pre-test and post-test scores, and improved writing in engineering courses. The course has been taught three times with approximately 20 students in each class and student evaluations have been consistently high. These high evaluations are consistent with research of PSI. Kulik, Kulik, and Smith (1976) report that students rate PSI courses significantly higher than traditionally taught courses.

The pre-test and post-tests include one question from each of the twelve units and ask the student to write a letter applying for a graduate assistantship. A simple t-test for repeated measures indicates a significant increase in scores between the pre-test and the post-test ($p < .01$). In comparing the first and second letters, the improvement of overall writing skills is immediately noticeable. There are fewer grammar mistakes, including fewer mistakes in the use of tense, agreement, articles, prepositions, and even spelling. Also highly noticeable is the use of conventions, such as the appropriate form of the letter, abbreviations, capitalization, dates, spacing, and style.

At the completion of the first course, engineering faculty were asked to comment on any improvement in student writing and the replies were overwhelmingly positive. The Department of Chemical Engineering, for instance, began requiring all their international graduate students to take the course and other engineering departments are considering doing the same.

PSI has been the topic of hundreds of published research articles and the overwhelming majority of these studies provide convincing evidence that PSI has been significantly more effective than traditional approaches. Several reviews have indicated that average student performance ranges 9-15% better than student performance in traditionally taught courses (Hursh, 1976; Kulik, Kulik, and Smith, 1976). Research has demonstrated that students in a PSI course retain more material when tested months later. In addition, it has consistently been shown that although students report that a PSI course requires more work, they also report enjoying the course more than others (Kulik, Kulik, and Smith, 1976). PSI has been used and has worked in a wide variety of disciplines. The PSI course at West Virginia University indicates that the PSI format is well suited for teaching writing skills to international students across a variety of engineering disciplines.

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VOCATIONAL EDUCATION

The Bilingual Vocational Instructional Aide Training Program (BE VITAL) of the Denver Public Schools developed English/Laotian and English/Vietnamese instructional materials during their one year of operation. Topics covered are: general school conduct, rules, regulations, and applications forms; basic electronics; electronics; electronics assembly; office occupations; and power sewing. Also produced were glossaries for the subjects listed and for auto body and auto mechanics. For futher information regarding these documents contact:

Denver Public Schools,
Bilingual Vocational Instructional
Aide Training Program, "Be Vital",
Emily Griffith Opportunity School,
1250 Welton,
Denver, Colorado 80204

◆ ◆ ◆

CHARTS AND GRAPHS

The United States Institute of Education has funded Consulting Statisticians, Inc. for an investigation into charts and graphs. The project will develop a conceptual framework for how people understand charts and graphs; the framework is based on syntax, semantics and pragmatics.

For further information contact:

Dr. Ellen Kitzis,
Consulting Statisticians, Inc.
3 New England Executive Park,
Burlington, MA. 01803 USA.

(More complete details in "Simply Stated", #11, November, 1980.)

◆ ◆ ◆

LIBRARY SEARCH STRATEGIES

The University of Toledo (Ohio) has instituted a course especially for international students on the use of a modern university library The course announcement describes it as follows:

CON'T.

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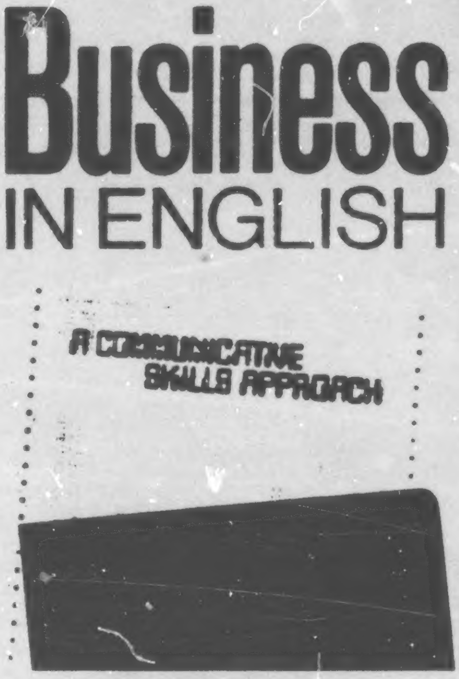
NEW from Regents

Business in English:
A Communicative Skills Approach
by A. Jack Hacikyan and Marilyn Gill
This is an innovative and entertaining book for students who have studied English and who wish to improve their ability to communicate in business. It makes for a useful supplement to one's knowledge of business terminology.

The book is based on real life situations which illustrate the use of English in everyday business communication. Twenty-five lively and animated dialogues tell the story of an American businessman who is faced with the usual and unusual problems of managing a rapidly expanding manufacturing company.



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English For Specific Purposes

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A MODEL FOR COURSEBOOK EVALUATION

Johnathan Elliman
Kuwait University

The evaluation of a coursebook for teaching a foreign language is ultimately concerned with the measure of that book's efficiency in teaching the learner to communicate in the foreign language. In order to assess such efficiency, a coursebook evaluation would best deal with a hierarchy of three levels of course design: first, the learning content; second, the teaching methodology; and third, the physical make-up of the book.

The evaluation of the learning content of a course - the WHAT - concerns both subject matter and linguistic content. An assessment of these areas must be preceded by a definition of the terminal learning objectives. These objectives cannot be defined at first instance in paralinguistic terms such as 'the ability to use basic English', because, for the purpose of communicative syllabus design, we cannot define such a term as 'basic', without knowing 'basic for what?', or 'basic for whom?'. We cannot define the learning objectives until, with Munby, (1978), we have identified the learner and defined his communication needs.

This alignment of proposed course content with the needs of the learner is by now a recognised prerequisite in preparing language courses for specific purposes. It is commonly regarded, however, that only special groups merit the title of ESP (English for Specific Purposes). Such special groups are usually those where a body of students with a clear learning objective make a special request for language studies to serve their needs for academic or occupational English. Such groups may be exemplified by overseas students studying English in the U.S. or Britain, before beginning, or as an adjunct to, their academic studies; by employees of overseas government departments and businesses who need English for further professional training; and by trainees who need English to carry out their technical training or work. However, it might be more realistic to regard every group of foreign language learners as a specific purpose group, where purpose is taken to comprise both communication needs and interests. It may be said that many categories of language learner do not have precisely identifiable communication needs. It is difficult, for example, to define or predict the future required language uses of high school students studying a foreign language in their own countries, or of adult language learner beginners. Such groups, however, will have their own specific, and clearly identifiable, interests, and these may be equated with needs.

Coursebook evaluation schemes that do not give priority to an assessment of the learning content in terms of the learners' communication needs may

CONTINUED ON PAGE 3.

ENGLISH FOR MEDICINE

Diana Adams-Smith
Kuwait University

Three papers by Diana Adams-Smith contribute usefully to the discussion of "ESP — Yes or No" and if "Yes," in what form? (cf. Hutchinson and Waters, "ESP at the Crossroads," and King, "ESP at the Crossroads: Some Points Considered," ESP Newsletter, #36 and #39, 40).

'Cooperative Teaching: Bridging the Gap and E and SP" (Al Manakh, v.2, n.2. 1978) deals with the problem of combining the study of English with professional instruction that is sufficiently specialized to be useful and relevant to the students. The Faculty of Medicine at the University of Kuwait has designed a series of teaching units in which both objectives have been accomplished. These units are described in the Adams-Smith papers. Implicit in the discussion is support for Philip King's contention that there is significant justification for subject-specific courses.

"The English-Language Needs of Paramedical Hospital Staff" (Al-Manakh, v.2, n.2. 2979) describes a research project designed to ascertain the language needs of physio-therapists in the Kuwait hospital setting. The information gathered in this pilot study is to be used in the preparation of English courses for paramedical students in physiotherapy and other areas.

Adams-Smith's third paper, 'How to Locate Information Using Medical Journals" (University of Kuwait: 4/78, 6/79) is a thorough introduction to the use of publications essential in the study of medicine. The location of current and reference journals and techniques of exploiting their resources are described in detail. Accompanying exercises provide practice in the use of the guides and reference works described in this article.

The three papers contain information that may be applicable in the design of courses and materials outside the field of medicine. They imply the conclusion that ESP is not only valid but necessary for the training of non-native speakers whose language-proficiency is not adequate for the study of specific vocational, occupational and professional fields.

M.K.M.

THE CHARACTERISTICS OF ENGLISH FOR ECONOMICS

J. Gallais-Hamonno

This article has suggested that the prevalence of English in the economic literature may have been facilitated not only by the development of research in English speaking countries but by the particular syntax unconsciously employed by Englsih-speaking economists. Linguistic analysis was made in three areas: the writings of Adam Smith (Lectures, The Theory of Moral Sentiments, and The Wealth of Nations), a sampling of major economics textbooks, and papers dealing with the demand for money. It was discovered that the economic literature employed a special syntax, particularly concerning the role of adjectives and the use of articles—definite, indefinite, and zero. While these patterns were found in all the economic literature surveyed, they were not found in the general English literature. Thus, there is more similarity between the language used in The Wealth of Nations (Smith) and Economics (Samuelson) than there is between The Wealth of Nations (Smith) and The Theory of Moral Sentiments (Smith).

The majority of the paper is spent describing the above mentioned syntactical characteristics of economic rhetoric and explaining how they offer advantages for the establishment of new paradigms in economic analysis and how they may have promoted research through the facilities they offer to analystical thinking.

M.M.

"THE INDOCHINESE REFUGEES AS PATIENTS"

Dr. Tran Minh Tung
excerpted from Journal of Refugee Resettlement ,
Volume I, Number I

Dr. Tung, psychiatrist and vice-president of Southeast Asian Professional Associates, Inc. speaks of the Vietnamese understanding of disease in an attempt to explain communication problems between patients and their American doctors. The first of these views is pragmatic—the search for a "naturalistic" explanation for the disease. Second is that disease is the manifestation of supernatural powers. Finally is the combination of the naturalistic observation with philosophical considerations: Am (Yin) and Duong (Yang). In this context the physician is a man of science, a depository of wisdom endowed with extraordinary powers. Therefore the reluctance on the part of the patients to detailed history-taking is explained by the fact that the doctor is expected to identify the problem right away.

In order to solve this problem of communication, Dr. Tung suggests several answers. First is to acknowledge that there is indeed a problem. Second is to look for ways to increase, facilitate or simply establish communication. The use of a bilingual/bicultural aide to bridge the gap or the use of orientation pamphlets may reassure the patients. Technical jargon should be avoided, but without implying that the patient is ignorant.

D.M.

fall into the trap of overemphasising the methodological value of a book. We can say 'overemphasising', because without a good match between learners' needs and learning content, it is of little interest if the book has sound methodology or not. This danger obtains when designating the students' needs as 'general'. Such a description will mean that a course book offered by the publishers as a course of 'general English' may be accepted without further reference to the learners. There is then a danger of evaluating course content in the terms of a particular linguistic theory. The learning items of a structural syllabus, for instance, may be checked against a list of the grammatical items that exist in the language, rather than against a predetermined inventory of grammatical items which realise those communicative uses of language required by the learner. Where, also, the subject matter is accepted because it is 'general', no further reference may be made to the particular interests of the target learners.

An analysis of the learners' communication needs or interests will indicate items in the following areas of communicative content: needed subject matter and derived lexis; required language skills (and possibly study skills); needed language functions and grammatical realisations: and suitable study level. A further parameter, that of authenticity of language in teaching texts, will be added to this check-list of necessary features of content.

It goes without saying that if the content of the coursebook is revealed to be a bad match with the items in the check-list in any one area, the course book cannot be considered to possess optimum efficiency. However, at this point, of matching coursebook content with the check-list of learners' needs, the usability of course content must also be gauged by reference to the influence of other constraints, such as the availability of suitably trained teachers.

The second level for course-book evaluation concerns the teaching methodology, the HOW; that is, the organisation, the presentation and practice of the teaching material. In this area the evaluator must provide his own check-list of criteria which will derive from his own opinions as to how efficient learning may best be achieved. However, there are possibly two principles which form an overriding control for any efficient learning method. The first is that the learner is consciously using language to communicate, so that the functions of the language are realisations of his own intentions; and second, that the learner wants to communicate, because the content matter of the communications interests him. Subject to these two principles, efficient learning may proceed with a variety of methodologies. However, the teacher-chosen check-list of methodological criteria must be open to modification to account for constraints which derive from the learners' language identity and cultural background. For example, indications from contrastive language studies may mean that certain phonemic or formal items should be emphasised. Again, a students' previous learning strategies should be taken into account. Where these are at variance with the evaluator's own views, as for example, where the learners have traditionally relied on rote learning, they should perhaps be recognised and allowed for, and used as a tool, rather than as an obstacle to language learning. However, methodological check items deriving from the learners' background may indicate adaptation of a course book, rather than act as requirements. Unless a coursebook has been written especially for the target students, it is unlikely that it will incorporate learning items in the right amount or in exactly the right way.

The third level of assessment in a course book concerns the physical make-up of the book—its length, the quality of layout and production, the extent and quality of illustrations, its cost. These features must be matched against a check-list of the evaluator's own opinions, and of administrative requirements, such as the time and the funds available for the program.

These three levels of a language learning course are presented as separate areas, but there will be some overlap between them. For example, illustrations may be considered both from a methodological view point, as cues for language use, and from an artistic viewpoint, as adequate or attractive representations of reality.

The three levels are presented as a hierarchy, with a given order of priority. For, while the methodological check-list of criteria is seen as something largely subjective, dependent upon the evaluator's own views, the desired content matter of the course is derived from the objective needs of the learners, and is definite. Thus, the content matter takes priority in the evaluation, and must be examined and judged first. Efficient learning is not dependent on one particular method, but if the course content is inadequate or unsuitable, efficient learning cannot take place.

This model for course book evaluation may be illustrated in outline by the table on page four. The model is offered as a framework, rather than as a comprehensive inventory. The outline may perhaps best be filled in by rearranging, and adding to, items in traditional and current coursebook evaluation guides (e.g. Matsol College Round Table, 1977), so that they confirm to the logic of this model.

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TABLE ON PAGE FOUR AS FOLLOWS:

A MODEL FOR COURSEBOOK EVALUATION

LEARNING CONTENT	CHECK-LIST
1. SUBJECT MATTER AND LEXIS	LEARNERS' COMMUNICATION NEEDS/INTERESTS
2. LANGUAGE SKILLS (STUDY SKILLS)	LEARNERS' COMMUNICATION NEEDS
3. LANGUAGE FUNCTIONS AND THEIR FORMAL REALISATIONS	LEARNERS' COMMUNICATION NEEDS
4. LANGUAGE LEVEL	LEARNERS' COMPETENCE
5. AUTHENTICITY OF LANGUAGE DATA	THEORIES OF PEDAGOGIC INTERPRETATION OF 'AUTHENTICITY': WIDDOWSON (1976); MOUNTFORD (1974)
6. USABILITY OF LEARNING CONTENT	PEDAGOGIC CONSTRAINTS: EG TEACHER AVAILABILITY
METHODOLOGY	**CHECK-LIST**
1. MEANINGFUL PRESENTATION AND PRACTICE OF CONTENT	COMMUNICATIVE VALUE OF UTTERANCES
2. LEARNERS' INTEREST IN COMMUNICATIVE CONTENT	LEARNERS' INTERESTS
3. OTHER METHODOLOGICAL CRITERIA	TEACHER'S METHODOLOGICAL STANCE
PHYSICAL MAKE-UP	**CHECK-LIST**
1. LENGTH OF COURSEBOOK 2. COST	ADMINISTRATIVE CONSTRAINTS
3. QUALITY OF LAYOUT, PRODUCTION, ETC.	COMMUNICATIVE AND AESTHETIC VALUES

READING ENGLISH FOR ACADEMIC STUDY

Michael Long et al

A review by Marjorie K. Morray,
Oregon State University

Reading English for Academic Study (REAS) combines instruction and practice in efficient reading skills with reading selections in eight areas of applied science. Although it is described as a text for intermediate-level students, it appears to the reviewer as more appropriate for advanced learners.

Despite the ample supply of material for native English-speakers interested in developing their reading skills, reading improvement has seldom been extensively or intensively dealt with in ESL. Thus, REAS is a welcome addition to the resources available to reading instructors in English as as Second Language. Its value is enhanced by its approach, which concerns itself less with answers to exercises than with equipping learners with skills for finding answers and for understanding reading passages.

Each unit begins with instructions for developing a reading attack skill, e.g., skimming, word definition through context, word analysis and prediction. Reading passages dealing with topics in the social, biological, physical and earth sciences appear next. They are followed by comprehension, grammar and vocabulary exercises, all of which are designed to aid in the development of reading efficiency and comprehension.

In summary, REAS is timely and topical in that it concerns itself with English for Specific Purposes at a moment when ESP is widely considered a valid approach to English language teaching. Moreover, the textbook deals systematically with a significant problem in ELT, namely, the improvement of reading attack skills among non-native speakers of English.

Instructors of reading on the advanced level would do well to examine REAS before choosing a textbook for their courses.

★TESOL DETROIT RAP SESSION★

ESP Newsletter readers attending TESOL Detroit may wish to note the EFL for Foreign Students in English Speaking Countries Rap Session scheduled for Monday, March 2nd at 7:30 pm. The session leader will be Jaime Poncé, academic director of TRANSLEX English teaching programs in Peru, Mexico and the United States. TRANSLEX provides ESP-oriented language training to more than 6,000 students per month at its various centers in the three countries and has an international staff of more than 200 persons.

The Rap Session will focus on motivation, objectives and purpose in designing English courses, and there will be special emphasis on meeting learner needs in situations where large numbers of students and scarce resources are involved. Those interested in the subject are urged to prepare for the Rap Session by bringing a related problem you have faced to share with the group; having a solution is not a prequisite.

In providing ESP courses for thousands in a variety of situations ranging from English in the barrio to specialized immersion courses for foreign professionals in the U.S., Poncé brings to the session both a multinational perspective and a commitment to ESP on a vast scale. The session will afford the readership a rare opportunity to gain first-hand insight into the mechanics of one of the world's largest ESP programs.

* * *

☆POSITION OPENING☆

The English Language Institute at Oregon State University announces an opening for the position of Director of the English Language Institute.

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☐ BIBLIOGRAPHY ☐

Language Training is a newsletter aimed primarily at the training manager. The objective is to present ideas and information on the subject of vocational language training, and to provide a forum for discussion. Part of it will consist of contributions from people in the field, and a great effort will be made to avoid the jargon of language teaching and linguistics.

For more information contact: Adrian Pilbeam, Professional Language Services, 26-32 Oxford Street, London W1A 4DY, England.

BIBLIOGRAPHY: MIGRANT WORKERS, edited by the *European Centre for the Development of Vocational Training (CEDEFOP)*, Berlin, 1979, is an attempt to classify, in a systematic way, most of the documents existing in the Centre's library on the subject of "migrants". The aim was not to collect anything and everything, but rather to link the choices with needs arising from the development of the Centre's projects.

For information write to: European Centre for the Development of Vocational Training, Bundesallee 22, D-1000 Berlin 15, Federal Republic of Germany.

"Implications for U.S. Bilingual Education: Evidence from Canadian Research", a paper presented by G. Richard Tucker at the *Third Annual Title VII Bilingual Education Management Institute* in November 1979 is now available free of charge from the *Clearinghouse of Bilingual Education*, 1300 Wilson Boulevard, Sutie B2-11, Rosslyn, Virginia 22209, U.S.A.

☆ CONFERENCES ☆

August 1981 (Specific date to be announced later.)

THIRD EUROPEAN SYMPOSIUM OF LSP (Language for Special Purposes) in Copenhagen, Denmark. Information: Copenhagen School of Economics, Unesco Alsed LSP Network. Fabrikvej 7, KD-2000 Copenhagen F. Denmark.

August 9 - 15, 1981

SIXTH WORLD CONGRESS OF AILA (International Association for Applied Linguistics) in Lund, Sweden. Information: Professor J. Svartivik, Department of English, Lund University, Helgonabacken 14, S-222362 Lund, Sweden.

TEACHING ENGLISH FOR SPECIFIC PURPOSES
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The Language Studies Unit, which is part of the Modern Languages Department, is largely concerned with EFL and particularly with ESP. The ESP work of the EFL staff operates at a number of levels: in the actual teaching of ESP courses within the University, in materials and textbook production, in seminars for ESP practitioners both in the UK and overseas, in consultancies and in a wide range of research activities. Postgraduate students have access to the archive collection of papers on ESP and to a varied selection of teaching materials as well as to the University Library.

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English For Specific Purposes

special issue

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This special issue has been prepared by David Blackie of Thomas Nelson & Sons. It presents our readers with an uncommon view of matters considered when developing EST materials.

THE DEVELOPMENT OF SKILLS FOR LEARNING

By John Sinclair, Professor of Modern English Language at Birmingham University, who was the Academic Director of the UMESP Project.

These materials are the latest outcome of a project that has been developing for several years, and occupying the attention of language teachers, advisers and administrators in Malaysia and the United Kingdom. This project known as UMESPP (University of Malaya ESP Project), began with a need perceived in the early seventies in Kuala Lumpur. The promotion of the National Language was steadily reducing the level of competence in English of school leavers. Those who aspired to higher study were losing easy access to academic material printed in English.

A working group was formed to look into the problem and try to work out a solution before the gap became too pronounced; the University of Malaya was joined by the University of Birmingham, and the Inter-University Council and the British Council provided resources and organisation. Research was built in from the start, and recognised as of first importance by everyone concerned.

The first year of the project was spent in finding out as much as possible about the students, their levels of attainment and their needs; about the teachers of English and of other subjects, how they viewed the process of language-learning, and how they allocated the responsibilities. Straddling years one and two, the leaders of the Malaysian team came to Birmingham for periods of planning, and returned to try out some new ideas. In March 1977 a four-week workshop was organised in Kuala Lumpur, during which period the first version of the entire course was written. It was printed up in a most superior format for pilot materials, and taught for a whole session to many groups at the Language Centre. An extensive evaluation was carried out both in the classrooms of Kuala Lumpur and in the UK supporting institutions. After a year the course was dismantled and completely rebuilt in a second workshop, and the painstaking job of editing for publication began. The Malaysian version was published in 1979, and from it has developed the International edition (Skills for Learning). There are thus three full printed versions of this project, showing how the present materials were shaped.

The first principle governing the materials was that they should be designed and composed by the teachers themselves. The rest of us provided advice, organisation, encouragement, consolation, and played our part in the workshops as team members. But the essential control throughout was what was realistic to the teachers, and what they found useful in practice.

The second principle was that reading should be regarded as a complex and interactive process. It is far more complex than just decoding print, and to call it a 'passive' or 'receptive' skill is to put the emphasis in just the wrong place. The original materials were thus designed with equal weight given to four components.

a) the structure of texts above the sentence, and how to derive their meaning.
b) ways of approaching reading tasks, developing strategies for reading.
c) the interactive nature of language, as seen in spoken communication practice.
d) the specialised language of a subject area, starting with science.

The third principle was that the target of an academic reading course should be seen as a general level of linguistic and conceptual sophistication as well as competence in the language of a specialised subject area. Hence a drive to use text from an appropriate academic level, and a suspicion of simplified or constructed material, though that is used where it was felt to be necessary. Hence also, in revision, a blending of components (a), (b) and (c) into one 'core' course which moves as quickly as possible into difficult texts, and is generally organised around the theme of Man and his Environment.

Against this is offset the specialised component (d), for which alternatives for law, economics, etc. are in various stages of preparation. Following the same principle, grading is more often achieved by the level of task than of text.

The fourth principle was that there should be a good reason, apart from the overall reason of wanting to or having to learn English, why students should get through the various demanding activities. English was the first priority for none of them; English classes were considered as extra, taking place often at unpopular times. There was a need for strong motivation at all points in the course.

Finally, there was an attempt to be explicit about the structure and aims of the course. Full specifications were worked out for every activity in every lesson, and early versions of both students' and teacher's books were very detailed in their explanations.

The principles were not supposed to be rigid, but a basis on which to plan, and from which to argue. The intensive writing workshops provided a good opportunity for almost continuous discussion and brisk co-ordination of effort. The immediate needs of incoming students gave a sense of urgency to each stage. In the beginning, it was a highly experimental programme, as experience accumulated it was honed down to a fairly simple course based firmly on conventional books. These decisions did not arise from a mistrust of multi-media technology, but because it was felt that a straightforward course of this kind did not need to go beyond the familiar simplicity of the book.

The materials arose in a highly specific context, and at all stages the particular circumstances of Malaysian students and teachers were in the forefront of the planning. However, from the beginning it was recognised that there was a lot in common between the Malaysian situation and that to be found in many other parts of the world; essentially the gap between the standard of reading attainment in English on leaving school and the need to have access to international printed English at an academic level. The project was originally designed in the light of what was known about work in many other coutries, in S.E. Asia, the Middle East, Africa, Central and South America. Because a strong link was maintained between the details of the Malaysian needs and the generalities that the advisers and consultants were deriving from world-wide experience, it was possible to keep track of the particular adjustments made for Malaysia. The course was designed in such a ways that an international edition could be prepared relatively easily from the Malaysian edition, which nevertheless is distinctly specialised. Quite early on in the project it was clear that there would be a lot of international interest in the outcome, and previous work of high quality had been found extremely difficult to make available for wide circulation because of the intensely localised nature of much ESP materials development.

The materials should be usable by students with only an intermediate command of English, working with a teacher who ideally has had some orientation in the use of the course, though the teacher's book tries to set things out very clearly. Teachers may find that they need to spend a little extra time in preparation until they have gained command of the style of the materials. Quite a lot of the individual activities can be left to the students on their own, and once the routines for pair and group work are established, the teacher will find that only light control is needed. It is still worthwhile to invest in some time teaching the routines, so that future classes will run smoothly.
By no means all the activities involve a high proportion of reading, but everything is geared towards giving the students confidence in their ability to read successfully, methods of planning how to read, what to read and where to find it; how to overcome small-scale difficulties encountered in the text and to accept, as they must, responsibility for reading efficiently.

☆ DEVELOPING LISTENING MATERIALS ☆

By Patricia McEldowney, Lecturer at Manchester University, who is Chief Examiner for the J.M.B. Test of English (overseas).

In any discipline students are required to write assignments and final examinations to demonstrate that they have learned a relevant body of specialist information. Such tasks represent the generalised goal for which information is collected during a course of study from, amongst other things, lectures and seminars. Where the medium of instruction is not the native language, the language teacher's task is not to communicate any body of knowledge but to help learners to master the tools that will enable them to survive in future listening situations controlled by the respective subject specialists.

As a starting point in the illustration of a technique for developing listening materials, let us take an example of the language behaviour a student might be exposed to in this respect. For instance, many students may be asked in a test to 'Describe an experiment to show X'. The relevant information students will have to listen to will be expressed in terms more akin to Text 1 below than the sparer style typical of the written mode illustrated by Text 2 and if, therefore, listening practice is to be valid, it should be based on input illustrating the style of Text 1.

Text 1: First, for this experiment we select two potted seedlings like these two here - they are equivalent. I mean, they are at the same stage of growth. One is placed on its side - one of the pots - so that the shoot is horizontal and the other is also placed on its side, but this time in a clinostat - you've all worked with one of these before? - a rotating turntable. You see there's a prong to fit into the bottom of the pot. It turns about four times an hour. So, although the shoot is horizontal all of the sides are exposed equally to the pull of gravity. You have to control the lighting conditions - they should be the same for each seedling. The easiest thing is to cover each pot with a cardboard box, like this.

Text 2: Two equivalent potted seedlings are selected. One is placed on its side so the shoot is horizontal while the other is placed in a clinostat...

There are three things involved in understanding the account given in Text 1 - a sequence of occurrence; the objects involved in each step; and details of position and manner. Thus, a listening task might be:

Listen and find the things needed in the

experiment; what is done to them;
and where and how it is done.

This task, however, does not give the learner any help in carrying it out, and so it is more like a test than a learning exercise. It would be more manageable if it were broken down into its component parts and if the learner's attention were more tightly focussed on the language tools involved.

Thus, we might first deal with the four steps as expressed by the verb select, is placed, is placed, have to control/cover. Now, the goal stated above demands a written version of the information and, in moving towards the goal, it is common to record in note form information gathered from various sources. We note that in the lecture (Text 1) both simple present and passive verb forms are used to describe a sequence of steps. Though a learner may not have difficulty understanding this, it is potentially confusing for productive purposes. To avoid this confusion, it is useful for initial production to establish one form for one use. To this end we observe that the most typical form, as illustrated by Text 2, is the passive. We might therefore formulate the first task thus:

1. Listen and number the following four steps in the order they are carried out:

are placed	are carried
are selected	are placed

Secondly, we might draw attention to the noun phrases referring to the objects dealth with, hence:

2. Listen again. Complete A below with exact words from the lecture

A B

_____ _____ _____ are selected
_______ is placed on _____ _____
_____ _____ is placed on ___ ___ in ___ ___
_____ _____ is covered with ___ ___ ___

Thirdly, we might draw attention to the prepositional phrases expressing position and manner thus:

3. Listen again. Complete B with exact words from the lecture.

In this way we have developed three cumulative listening cycles, each of which focusses on appropriate language forms and it is only after such practice that learners can handle the more open-ended and complex task originally formulated above.

Implicit in the above discussion is the control of an aural/visual match which is necessary if learners are to produce written language correctly. In 1 above with regard to are placed, for instance, this is taken account of at the same time as the verb is placed in a sequence of occurrence. Similarly, significant words can be numbered in the order they are first heard. After such practice, learners might take 'dictaton' of the same forms in the manner illustrated in 2 and 3 above. A further relaxing of control might be to use the same forms, as they listen, to complete a table until learners are finally able to take open-ended notes.

Further, the types of task suggested allow practice in the mental operations involved in comprehending. Basic is identifying relevent information. In 1, 2 and 3, learners' attention is focussed on information necessary for describing the experiment and thus its relevance can be made overt by finally asking learners to use it in writing up the experiment. Distinguishing between pieces of information could, for instance, be practised in 1 if the verbs are grown and are planted were included for rejection. Classifying could be included if learners were asked to group a list of verbs as discussed (D) or not discussed (ND) or as happening inside the clinostat (IC) or outside it (OC). Ordering is practised in 1. Synthesising could be practised in a later cycle if learners stated where in 3 they could insert This apparatus equalises the effect of gravity. Inferring is practised in 1 where learners infer the forms is selected and is covered from select and to cover respectively. It could be further practised by asking them to infer an initial step to the sequence e.g. The seedlings are planted.

Finally, translating occurs as the information moves from the spoken to the written mode as a final concretisation of the exercise. Learners might also match a suitable diagram with each step in the experiment or they might actually demonstrate it. We note that this should be held until the end lest a too immediate communication of meaning renders the language involved redundant.

☆THE PRODUCTION AND SELECTION OF EST TEXTS☆

By Martin Webber, the Academic Adviser for Anglo World Education Ltd., Cambridge, UK.

The increasing international demand for subject-specific and job-specific EST courses had led, inevitably, to a corresponding increase in demand for specialised texts. Indeed, the demand for job-specific EST courses is potentially so varied and extensive that it will be many years, if at all, before the demand will be met by published materials. The EST course organiser, therefore, frequently finds himself faced with a group of shipbuilders from Port Said or a group of electricians from Bangkok but with no directly applicable materials available from his EFL bookshop. Whether for practice, presentation or testing, he finds himself in need of subject-related texts for use with the group but no easy source of supply.

He may then decide to rifle through text-books and manuals in the relevant subject area, hoping to be able to lift wholesale or to somehow adapt some suitable texts. Or he may set himself, or some unfortunate subordinate, the task of writing texts on the subject. Probably he will be happy with neither alternative.

Whether he decides to select texts or to produce them, the first problem he will encounter will be in the very subject content of the texts and the degree of theoretical knowledge or practical experience they presume in the reader. In the EFL business we have found it convenient to postulate a general category which we call EST - English for Science and Technology. Linguistically they may, indeed, be similar. But in the educational backgrounds of ESP students there can be very considerable differneces. Secondary education in the USA and Europe includes a degree of basic theoretical study in physics, chemistry and other sciences for all students but in many other countries there currently exist neither the facilities nor the expertise to offer similar broad syllabuses to all students. In these countries the educational distinction between science and technology is a clear one and one which is usally made very early in secondary education. Science students follow a largely theoretical course of study in the classroom and laboratory while others - often those judged to be academically less able - will enter trade or craft schools or technical colleges to follow an intensely practical, 'dirty hands' course of training. Thus, while a group of students with a science background will, potentially, be able to follow a course using texts which deal, for example, with Boyle's Law and cosines, ESP students with a technological background will not. Conversely, the 'scientists' will not be able to work from texts dealing with the alignment of workpieces in a four-jaw lathe or the operation of a hydraulic press.

While this may seem obvious and even simplistic, the resultant selections in the subject matter of EST texts which should result in a clear, practical distinction between science and technology are not generally apparent in much of today's published EST material or the texts used in some EST teaching establishments.

While the postulation of a single, definable 'variety' of language - EST - is perhaps linguistically justifiable it is educationally disastrous and a clear distinction between English for Science and English for Technology is essential throughout EST. And, as the choice of texts will necessarily influence and affect other methodological prodedures, this distinction is particularly important in the subject matter of selected or composed texts.

The next and most problematic decision facing the EST course organiser is whether to search through text-books and manuals for suitable texts or whether to write 'tailor-made' texts from scratch. The problem, of course, with lifting complete texts from extant technical or scientific works is the unavoidable interference of unwanted lexis, structures or whatever from within that text. This problem is not unique to EST and may certainly be less significant at the higher levels of language study. It is, however, in the elementary and intermediate areas that the shortage of published materials is most felt and it is also less likely that suitable texts for use in these areas will be found in subject-specific text-books. There are, I would suggest, three main factors which particularly discourage the direct use of texts taken from authentic scientific or technical source material:

i) The potential problem, already mentioned, of interference from unwanted linguistic factors within the text. This is not to say that EST students should not be exposed to authentic materials, far from it, but, presuming that some process of selection - be it structural, functional or whatever - is made in order to define and organise the methodological process, then there is certain to be recurrent conflicts between this process of selection and the linguistic content of the text.

ii) The related problem that only a small number of the selected and required structures or functions will be found within the selected text.

It is justifiably arguable that the above two factors are considerably less critical when selecting texts for their functional, rather than their structural content. Quite close linguistic boundaries can be drawn, for example, around 'the language of spoken technical instruction' but in many forms of authentic written material a wide variety of functions can be seen to co-occur.

iii) The over-riding problem that authentic technical and scientific texts treat their subject matter in dense and considerable detail. While it must remain the target to enable the EST student to use just such material it is surely essential to make an initial separation of linguistic and subject-related details. The EST teacher using authentic texts will find himself and his students becoming more involved and occupied with the subject than the language and, while a direct involvement with the subject matter is an essential requirement in all EST teaching, it can become predominant and obstructive when authentic texts are used. And it must also be accepted that the use of intensely subject-specific texts make heavy intellectual demands of the EST teacher.

The inevitable conclusion, therefore, must be that it is better to write EST texts, particularly for use at lower levels.

However, lest this should be thought a policy which is more easily preached than practised, I would offer two mitigating suggestions:

i) It is readily apparent that there is considerable common ground between comparable EST texts and that the major difference between texts from different subject areas occurs mainly in lexis. It is also true that lexis is generally the least problematic area for EST students. Whenever, therefore, EST texts are written as exemplars of a particular structure of function - given that they are deliberately and carefully written with a lower density of subject detail (which, incidentally, will also help by generating far fewer problems of lexical interference between subject areas) - it is possible to write 're-usable' texts that will have a viable use with more than one group of students. This also opens the possibility of using a 'basic' or 'core' EST course-book (or, rather, an English for Science or and English for Technology course book) with a broad spectrum of EST students, given that the course book is written following the above criteria and that the textual and lexical work with a very specific subject orientation.

ii) In wholly practical terms, I would suggest that it takes less overall time to write suitable texts (or, where it is available, to use a suitable 'basic-core' course book with supplementary material) than it does to search through authentic tomes in the hope of finding and adapting 'something suitable'. Given also that a properly written, controlled and subject-limited text has a more useful and constructive place in the EST classroom, it is likely that we shall see fewer teachers in the future battling in brave confusion through authentic texts.

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EXCEPTIONALLY SUBTLE PUBLISHING?

By David Blackie, ELT Publisher at Thomas Nelson & Sons Ltd., was the Supervisor of the English Language Unit, College of Engineering, University of Kuwait.

For any successful publication in education and training, a publisher and his author or team of authors require clear objectives and a well-defined market. In the area of English for Specific Purposes clarifying the objectives and defining the market are unusually difficult tasks. The problem, of course, is that if you develop a special course for Italian dietitians at the Instituti Technici, (and you would probably be suprised by the number of Italian dietitians who learn English!) you are likely to have a market altogether too small to make the publication worth the effort, If on the other hand, a publication emerges with a title such as English for Engineering, there's a danger that it will be suitable for only a small number of learners, despite the apparently large market. Worldwide, ESP is still a relatively new phenomenon, and there is no broad agreement about the main criteria for ESP course design e.g. the level of English required before ESP should be introduced, the degree of technical content and the specificity of the technical content, the length of course, the degree of authenticity of the materials, and so on. Even in the unlikely event of agreement on these points, there would still be other thorny problems for the publisher, concerning the questions of whether the ESP materials were to be considered as 'core' or 'supplementary' or whether there should be a series, which may place undesirable constrictions on a given book, or a looser ad hoc policy on what to publish. I hasten to explain that I do not have the answers at hand, neither do I believe they are readily available. It is, of course, for the teachers and course designers to decide what is appropriate for their students, to examine published material, to select or reject, and to develop their own materials where necessary. In this publication we can at least see what our present position is.

ESP publishing is not only an exciting challenge, but provides an important service to those who find themselves in what we might broadly call an ESP context. In this special edition of English for Specific Purposes, John Sinclair describes an operation which shows just how thorough ESP materials development can be. The decision to publish was a happy one as it was clear that we were not only being offered materials of exceptional quality and reliability, but the clearly identified objective, viz to bridge the gap 'between the standard of reading attainment in English and the need to have access to international printed English at an academica level', meant that there was a clear need for this publication worlwide. Similarly, the forthcoming publication English in Context is designed specifically to develop those skills which are required in an English-medium study environment, and in her article the author, Patricia McEldowney, describes an approach to developing suitable materials in this context. The range of materials we group so crudely under the heading ESP is highlighted by Martin Webber's article, where we see the quite different needs and aspirations of English Language beginners and false beginners at technical institutes. English in the Medical Laboratory is obviously at the 'sharper' end of ESP, but has been warmly received in a wide range of countries. Paul Fanning's article gives an account of how it started and developed, and, by way of a change, Jill Florent takes up the story at a stage in the proceedings that is normally not so well documented in the literature.

So just how subtle is it? Obviously time is the best judge of what is wanted, and we at Nelson are lucky enough to have an ESP publication that has sold well for almost 10 years, Writing Scientific English by John Swales.

The objectives of the course are clear, and no-one doubts the existence of a large number of learners who need to produce written scientific English, and who have not been prepared adequately in their conventional English courses. As I said above, I do not have any ready-made answers to the questions of extent, content, level and so on, but I am convinced that where a desirable language skill or range of skills is combined with lasting quality, no disservice has been done.

☆BACKGROUND TO ENGLISH IN THE MEDICAL LABORATORY☆

By Paul Fanning, who is head of the Communications Skills Centre at the University Juba, Sudan.

English in the Medical Laboratory grew out of efforts to service the first- and second- year students of the former Medical Laboratory Technicians' Training Unit (Bow Institute of Medical Laboratory Technology), University of Khartoum. The majority of these students were Arabic-speaking and their experience of English was, in the main, limited to EFL classes at lower-intermediate level for the Sudan School Certificate. The University of Khartoum requested EST instruction for them in 1975. John Swales and I agreed to become jointly responsible for both the planning and the teaching of a course.

It was immediately obvious that most relevant teaching materials would have to be created from scratch. A study of the Institute's medical laboratory technology textbooks, as well as of its question papers from past examinations, suggested as a starting point two different but complementary language priorities. One was to confirm the existence of what seemed to be an extensive, specific 'sub-technical' vocabulary, while the other was to take a look at the structural devices frequently associated with that vocabulary. Much of the sub-technical vocabulary which finally appeared in English in the Medical Laboratory was verbs. This was logical, given that much of medical laboratory technology is concerned with laboratory procedures which consist of sequences of actions. Since many of these procedures involve the handling of liquids, it proved an easy further step to characterise the initial, main groups of verbs as actions concerned with liquids. Other verbs that were added later were identified from frequency tables available in ESP literature for instructional procedures in general.[1]

As far as syntax and discourse are concerned, we found that two different procedural verb forms occured in different textbooks, one usually to the exclusion of the other. These were imperatives in sentence-initial position, and passives. Although students were expected to be able to understand and correctly produce both forms without confusion, little attempt had been made to discover or point out the difference between them.

The content selected to teach imperatives was fairly standard; that assisting the teaching of passives was less so. The approach to teaching imperatives was influenced by techniques associated with the Department of Teaching English Overseas, University of Manchester.[2] Students would start by underlining or listing imperative verb forms in a text, and would gradually progress towards constructing their own texts from no more than a given, ordered list of the imperatives to be included, plus diagrams. It was an exercise of this sort that first aroused the interest of Nelson, the eventual publishers of English in the Medical Laboratory.

The work on imperatives occurs in the early part of English in the Medical Laboratory.[3] The later verbal focus, on passives, is more substantial. An interesting development not long after this work had begun was that students started to interpret every passive form they met as procedural (i.e. with an implicit human agent). It was, therefore, necessary to write material to remedy this. On the language-production side, meanwhile, experiments began to be made with a non-traditional approach to the elimination of active/passive confusion. Two units in English in the Medical Laboratory that resulted from this are entitled 'Operations and Results' and 'Actions and States'. The exact form of these units reflects an underlying conviction regarding syllabus design: that a familiarity with common student errors is of primary importance.

Concurrently with the work on verb forms and usage, the vocabulary-centered approach was also blossoming. Eventually there were two sets of complementary units, which are presented in English in the Medical Laboratory in an alternating sequence. The vocabulary of liquids first expanded to incorporate single adverbs such as carefully and rapidly. Words soon turned into phrases, and phrases were classified into categories such as 'means', 'method' and 'instrument'. The culmination of this development was the final unit, 'Alternatives in the Clinical Test Procedures', which concentrates on if sentences and modal verbs.

All of the material in English in the Medical Laboratory was tried out in Khartoum and rewritten where necessary. Scientific and technical points were clarified by the ever-willing staff of the Institute, and a visit was made to the National Medical Research Laboratories at Mill Hill, North London. The final draft was sent to the publishers in 1978. Since then responsibility for the book has gradually fallen into other hands, but the particular features of laboratory English (in general), with its many unresolved problems, retain their interest for the authors.

FOOTNOTES

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[1] Ewer & Huges-Davis. Instructional verbs in EST. mimeo (undated).

[2] See Wingard, P.G. Description Using Stem + s. in ESPMENA BULLETIN.

[3] ESPMENA BULLETIN No.3, Winter 1975-76, p. 10.

ENGLISH IN THE MEDICAL LABORATORY
- AN EDITOR'S PERSPECTIVE

By Jill Florent, who is an ELT Editor at Thomas Nelson & Sons Ltd.

The manuscript for English in the Medical Laboratory came along, like any other manuscript landing on an Editor's desk, with its 'validation' form; a set of specifications. English in the Medical Laboratory was destined to be 216 x 138 cm, 96 pages long on 80 g.s.m. paper with 50 line-illustrations and a 2-colour laminated artboard cover. It was my job to put these two things, manuscript and specifications, together into a book.

The first step is checking the content, then marking-up the copy and keying-in the illustrations. It may not sound much but it does take a while.

The major difference between an ESP and a general ELT title is the content. As an ELT editor, I am supposed to know something about teaching English (be able to recognise a gerund from a present participle at twenty paces), but the specific subject (in this case medical theory and medical laboratory procedures) is foreign territory - that's what makes ESP titles interesting to edit - you're learning something new.

The material in English in the Medical Laboratory had been tried out on medical students in classrooms in the Middle East, and criticised by experts in the field but neither this, nor the fact that I know nothing about medical laboratories did nothing to deter me from writing to the authors, John Swales and Paul Fanning, querying various exercises and making presumptuous proposals about how to improve the text. Perhaps I should have detected a note of irony in John Swales' reply: 'Dear Jill, Thank you for your letter of 9.viii.78 and enclosed suggestions. Right out may I say that you ... are already putting old hacks like me in their proper places ...".

Once the content has been checked (yes, I worked through all the exercises) and the copy marked-up to indicate: relative weight of headings (A-head is bigger and bolder than B-head), bold or italic words picked out (e.g. see P.46) and all the spelling checked and style rendered consistent (John spells -ize and Paul -ise, and I have to arbitrate), imperial measures changed to SI units for international comprehension etc, then I pass the manuscript on to the designer who commissions an illustrator to draw the diagrams, and marks-up for the printer what type style and size to use for text, headings, titles etc (e.g. the text is $\frac{11}{12}$ point Times).

When this is all decided and marked-up, the manuscript goes off to be typeset into galley proofs. This means that the printer sets the copy in the type indicated, the 'measure' across the page is the right width for the finished book, but the page breaks are not yet specified and the copy is returned on the long thin strips known as 'galleys' (the terminology dates from the early days of printing).

The authors each have a set of galleys to read and various other people (Marketing, Publicity) who will be interested to see the finished book can begin to see what it will look like. The printer has also read and marked a set of galleys, and it is this 'marked set' that I as editor read, and I include the authors' corrections onto this set before passing it on for the next stage.

The next stage is perhaps the most interesting in the production process. It is known as 'paste-up' because the designer takes the long strips of copy and pastes them onto pages corresponding to the size of the finished book. This is the stage where we have to compress the copy into the allotted number of pages, (96, as we remember from the specification form). At the same time, we must make sure that the page breaks come at a logical point in the text, so that exercises are not cut off from their explanations, or that where reading passages are followed by exercises which should be done 'without referring back to the passage' students will have to turn over the page, thus reducing the temptation to look back at the forbidden passage.

It is also important to see that diagrams fall in the appropriate places in the text and that pages are well spaced out and attractive. Books are made up in batches of 16 pages, so if the copy looks like running over by just a couple of pages it must be made to fit somehow - and there are a number of tricks possible at this paste-up stage. For English in the Medical Laboratory however, we decided that we could add another 16 page section and even then we needed to use some ingenuity here and there to avoid 'bad breaks'. In some places I think that the limitations of space inspired us to improve the integration of text and diagrams into a coherent explanation (e.g. P.27). In the end I think we were successful - all the units begin on a new page and no exercises are split in a way which makes them difficult to complete without turning and re-turning the pages.

When all this had been sorted out and the copy made to fit happily into it's 112 pages, the paste-up and marked galleys went back to the printer, following the paste-up for page breaks and the placement of illustrations. After this, we all checked it again. It is at this stage that the cover design is completed and later we had a proof of this too, to check the colour and the cover copy.

Eventually, after what seemed an eternity to the authors, we got the first copies hot off the press (or rather, straight off the aeroplane from Hong Kong), and the bulk copies followed by sea about six weeks later.

SUBSCRIPTION INCREASE

Due to increases in printing and mailing costs, the Clearinghouse is forced to raise the cost of subscription to the Newsletter. We will accept Year 5 subscriptions at the previously published rate (See Issue #46) until March 15. After March 15; 1981 subscriptions will be entered at the rates given below.

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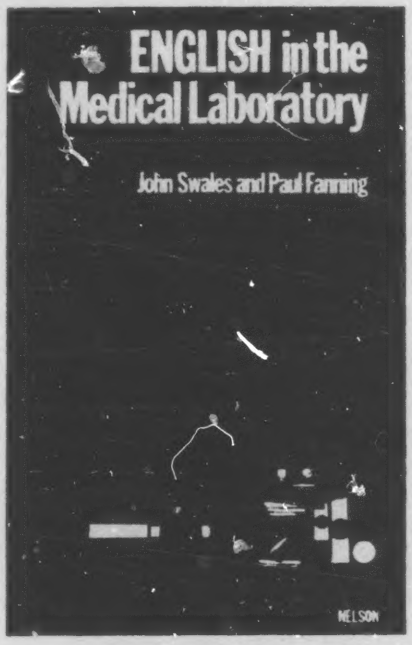
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English For Specific Purposes

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FROM THE EDITOR

For several months now, the Newsletter has aired discussion of whether subject specific courses make any sense (cf. #36,"ESP at the Crossroads:, 39/40 "ESP at the Crossroads: Some Points Considered"; #44 "From the Editor". As late as issue 45, reader response was encouraged to foster the lively debate and critical self examination that are necessary to effective assessment of ESP as a separate discipline, as a part of the ESL fold, and as a part within the larger realm of second language acquisition.

Three articles in this month's Newsletter deal with the question of assessing the function of ESP. Ernest Sinauer's article "Response to ESP Debate" presents one perspective on the question. The excerpts "An ESP Debate Continues" and A Note on "Special Languages" and "Special Purposes" summarizes other responses to this vital question.

The Clearinghouse and Newsletter will continue to be active in the assessment. In April, we will be reporting perspectives outlined by participants in the "EFL for Foreign Students in English Speaking Countries SIG", held this month at TESOL International in Detroit. Later issues will assess the role of ESP in other countries and within specific programs. Certainly, we will continue to report reader response -- as you respond.

A RESPONSE TO READER DEBATE

By Edwin Sinauer, the Director of International Training Institute, Washington, D.C.

I regret Karl Drobnic's departure, but welcome the invitation to comment on various matters in Issue 45, December.

I applaud the Hutchinson/Waters (Issue 36) "ESP at the Crossroads" and refer back to my comments in Issue 2 and in Issue 4 "EST - Rose Garden or Blind Alley". Additionally, I learned English, French, and Spanish by totally different methodologies, giving me some practical insights.

Not only are there "technical needs", but also the prior qualifications of the student and the purpose of learning EFL. This suggests a need for inquiring into the origin/language of students, objectives, etc.

1. Many would agree that ideally foreign students should first be exposed to the English language and to life in general for 12-24 months before attending general or special purpose education/training. This is rarely possible, but a Red Sea country has come close, placing college-bound students first (after EL) in American homes for a year, while they attend high school.

2. Much more needs to be said about European vs. non-European languages, together with prior education. Assuming identical TOEFL scores, speakers of non-Western languages have much further to go before their thought process matches that of American students — Japanese are a prime example.

3. What is the purpose of education/training? It may seem reasonable for graduate students to seek specific knowledge in a brief period and return home, but even here I wonder: For graduate students only the Economics Institute, U. of Colorado, has for over 20 years conducted English classes, and for those past 450 TOEFL and for English speakers a 5-week course with considerable

emphasis on quantitative economics - a major deficiency abroad. Along with the approach of this Institute, this anticipated Hutchinson/Waters by many years.

4. Most likely foreign students in the U.S. are or become specialists, often in science or technology, but fields range from business administration to zoology. Long ago I asked: What do American students learn through high school which is absent abroad, but assumed to be known by college faculties at all levels?

The Transition Seminar was established in answer to this question. Through the years I have contended that it is not feasible to teach these subjects as part of EFL because instructors can't be expected to also be knowledgeable in these fields and, more important, prior to 450 TOEFL injection of subject matter (not vocabulary) is premature. Two legitimate questions seem to arise: Can one adapt EFL courses better to future needs, and is it desirable to send students into specialized fields?

It is certainly desirable to direct vocabulary away from the traditional emphasis on English literature. The second question has entirely different implications: Unlike some ESP advocates I believe that foreign students should not return from the United States without a basic understanding, if for no other reason than that they will be considered experts, far beyond their specialized fields.

Prior to 450 TOEFL, course contents should be further improved without any delusion that students are learning subject matter. Thereafter one can proceed in one-subject courses, such as combining quantitative economics with an introduction to the United States. Realistically most students are best served by an EL sequence up to 500 TOEFL, a transition in English to place them on a par with American students, and perhaps a brief period of special subjects—probably at their destination.

Summary: English language courses should be improved, in line with vocabulary needs. At 450 TOEFL for some and 500 TOEFL for most, together with students from English language countries, there should be a transition process to introduce "American" subjects (incidentally providing advanced English in free discussion), to place foreign students in a competitive position with their American counterparts.

I appreciate your attention to this letter, which is clearly out of sympathy with much ESP doctrine, but finds an occasional echo in your pages.

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The primary focus of the conference will be on the written English of Science and Technology (EST), and particulary on

1. Problem Areas in Teaching EST Discourse
2. The Function of Important Rhetorical and Linguistic Constructions in EST Discourse
3. Appropriate Methodologies for Teaching EST Discourse.

Other topics treated in the conference will include Theoretical Traditions for Dealing with ESL and EST Problems, Understanding and Using the Student's Cultural Background, Lecture Comprehension and Oral Presentations, Using Technical Experts as Informants for EST Research, Text Selection and Development of Course Material, Testing, Identification of Language Transfer Problems, Teacher Training and Program Administration.

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This conference is designed to improve instruction in technical and professional communication in universities, colleges, technical institutes, professional schools, and community colleges. It is designed especially for teachers new to teaching technical and professional communication and for administrators responsible for developing new programs. The conference is also useful for experienced teachers from both educational institutions and from industry to exchange ideas and to learn new approaches to teaching communication.

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SCIENCE EDUCATION PROGRAMME FOR AFRICA

The Science Education Programme for Africa (SEPA) is an intergovernmental regional organisation in African education development, whose membership is at the State level. Its overall aim is the development of human and appropriate material resources in science education for use in countries in sub-Sahara Black Africa by initiating and running programmes. SEPA's own central and focal points are the child, and the science and technology education for development in Africa. In late 1978 SEPA embarked on a Review Programme to gather information on the essential elements of science education development in English-speaking Africa since 1960 and to present this information in book form to diverse audiences.

When all the information is received, the findings will be analyzed and findings and recommended approaches to Science Education will be formulated, with the information available to all interested groups. For more information on the REVIEW Conference, write to The Director of Programmes, SEPA, P.O. Box 9169, Airport, ACCra, Ghana.

THE ESP DEBATE CONTINUED

In the 1980 December issue 37 of TEAM (Teachers of English Arabian Monthly), John Swales adds his thoughts to TEAM's "Great ESP Debate". Specifically Swales responds to Dr. James Macomber's rejoinder in TEAM issue 33 and original articles in TEAM 29 and 31. Swales applauds Macomber's original article in 29 which stressed the importance of discovering what the students' real vocabulary difficulties are in their assigned technical readings and the recognition that there must be some 'pay-off' for the students if they are to be persuaded to complete their lists conscientiously and submit them regularly. Swales' support of the Macomber procedure comes from his view that in the Arab world we do not do enough to make our English-language readings as fully accessible to our students as we might.

Reducing the load of lexical unknowns is one part of a strategy for increasing accessibility. The Macomber scheme offers a way of discovering what these unknown vocabulary items are, and does rely, of course, on responsible student contributions. Therefore, the scheme is not 'fool proof'. Swales suggests that perusal of the text-book stock could act as a useful check on the data by seeing which words students tended to underline and/or gloss in the most heavily used texts.

While at the 1979 Summer EST Teacher Training Institute at Oregon State University, Swales et al in the Materials Production Course, discussed the feasibility of this scheme and how it could be modified to fit other situations. From Swales' point of view, there are at least three categories of vocabularies in ESP: Technical (which the scientists teach); Non-technical (which is needed for everyday conversation, etc.); and Sub-technical (which is needed to support the students academically in an English-medium institution). He feels sub-technical vocabularies can be further divided into 1) formal and elevated (i.e. Latinate) alternatives to the common stock and 2) words referring to discoursal organization or conceptual methodology. To Swales it appears that Macomber shows there is no sensible course other than concentrating on the sub-technical vocabulary of the relevant technical discourses.

Swales believes that to understand the learner's educational environment and his needs, wants, interests, problems and expectations is the ESP practitioner's first priority. What comes out of that will influence the selection of linguistic and communicative objectives. The days are long past when 'the ESP buff' could excusably prejudge his teaching items by drawing them indiscriminately from the appropriate technical register without recourse to enquiries into the actualities of his students' educational environment. It is only when our orientation is narrowly linguistic that we may let ourselves and our students down.

Therefore, Swales concludes, that James Macomber has identified an ESP need of his students and one which the Chemistry Department is attempting to meet.

(Excerpted from "Glossaries and ESP", TEAM No.37, December, 1980. John Swlaes is with the Department of Modern Languages, The University of Aston, Birmingham, England.)

DM

A NOTE ON "SPECIAL LANGUAGES" AND "SPECIFIC PURPOSES"

Excerpted from a 12-page article by Robin Turner in UNESCO's ALSED-ESP NEWSLETTER (Vol.4, #1 (11). November, 1980).

Robin Turner addresses the issue of the widening gap between those who see LSP as the study of special languages for ultimately pedagogic purposes, and those who see "specific purposes" as the decisive consideration.

Not only is the 'L' controversial in LSP, so is the 'S'. Does it modify the Language or the Purpose? Does the term "special" refer to the use, user, mode of analysis, or all of these? As to "specific", what degree of specificity is being addressed? Moreover, the usual domain (Science and Technology) and medium (written language) show bias against other domains and spoken language.

Relevant to the definition of special languages are opacity (a non-specialist can't understand it), domain (where, how and to whom it is used) and mode of analysis (how the special language is separated from ordinary language, with reference to text analysis and discourse analysis).

Text analysis, focusing on supra-sentential structuring of text, is still in its early stages. The synthetic approach broadens the base of analysis, characterizing language varieties in semantic, syntactic and pragmatic terms. Looking at discourse analysis of special languages, one is led into a dichotomy between an investigation into the total communicative needs of the speaker in an actual situation, and the study for itself of language in restricted locations, or of special language for theoretical purposes.

Turner feels that research, even piecemeal, into total communicative needs of learners in particular situations can be incorporated into systematic overall analysis of special language.

These analysis would, in turn, yield more adequate descriptions that will be a reference source for the course designer with specific purposes in mind.

The distinction between purposes and situation demands in the designing of occupational courses is crucial. The designer sets prime objectives and sub-goals based on consideration of the resources available, the relevance of instructional techniques, and the communicative requirements on the learner. The learner provides a personal needs assessment. A conflict frequently occurs between the learner's and the designer's assessment of needs/purposes. As the learner is often unaware of the full range of sociolinguistic factors in his/her field, the learner's judgment must be taken on its merits, and the final decision made by the designer.

Turner argues that the "specific" in LSP should not only refer to the domain, the specific subject matter, such as "Business" or "Medicine", but should also make reference to the users, their intentions and the variables defining their needs. Domain is not the crucial determinant of specific purposes; LSP for Immigrants, for example, crosses several domains, but it meets the daily life communication needs of an identifiable social group. In addition, the range of specific purposes cannot be exhausted by simply listing the skills needed by academics and other professionals in specialist-specialist role relationships.

Turner concludes that a broad-based special purposes approach, using material with a wide range of non-specialized multi-leveled variation on a common core may be more problematical, in face-to-face interaction, at least, than building on the "special language" taken from learned journals.

(Editor's Note: The excerpt "Common Language Borrowings" was jointly prepared by Deborah Healy of our regular Newsletter staff and by Ricardo Marzo, who is on exchange to the ELI from Translex of Lima, Peru. We'll be presenting more information on Ricardo and exchange programs in upcoming issues.)

RECIPROCAL BORROWINGS BETWEEN SPECIALIZED LANGUAGES AND COMMON LANGUAGE

By Deborah Healy and Ricardo Marzo

This French article is based on a study of anglo-saxon economic language. Gallais-Hamonno emphasizes that both specialized and common language evolve, interacting with each other and a changing vision of the world.

Current economic practices, reflected in common language, form the basis for the first type of borrowing, from the common to the specialized language. Everyone understands what a "bank account" is; the economist takes that term, analyzes and redefines it. When it enters the specialized language, the expression is the same, but the meaning has been enriched; "Il possède une définition élémentaire, qui est celle de la communauté linguistique nationale, et une définition élaborée donnée par les chercheurs" (p.2). As time passes, the definition grows richer. The expression from the common language no longer designates an observable phenomenon; it has become a concept which forms part of a theory.

The economist rarely creates completely new terms to describe new concepts. For specilized new vocabulary, the anglo-saxon economist most often uses an expression with a postposition, commonly a particle, or with a preposed adjective or noun.

The postposition is generally used to show the extension of a concept into a new area of analysis. For example, the concept of "demand" can be extended into demand for housing, for agricultural products, etc. On the other hand, to put a noun, adjective, participle or expression before the concept indicates a change in the concept. A new concept, perhaps a better explanation of the original, has been developed through analysis; the original then becomes the "generic" concept.

Another frequent source of borrowing is the specialized language in another discipline, notably mathematics. The borrowed word is often also part of the common language, like "average", "total", or "rate".

Borrowing is not unilateral; specialized definitions go from specialized language back to common language. One example is the word "savings". As is often the case, the borrowed meaning is not quite the same as it was in the specialized language, at least initially. In addition to an increase in scope for the "returned" word, the scope of meaning for all related words also expands to include the specialized concept.

Gallais-Hamonno concludes that the borrowing between the common language and specialized languages enriches both, and also requires less imagination on the part of the scientists: "La langue commune... permet à l'home de science de ne pas roujours avoir à faire preuve d'imagination à la fois scientifique et langagière." (P.9).

Copies of the article, written in French as "Les Emprunts Reciproques de la langue Specialisee et de la langue commune".

MODEL VOCATIONAL EDUCATION PROGRAM: TEACHER AIDE TRAINING FOR LES ADULTS

A new model vocational education program of teacher aide training for limited English-speaking adults is presently operating at Mesa Arizona Community College. The program, which concentrates on the adult Spanish speaking population, is a response to the need for persons who have dual language capability as well as entry level skills and knowledge in a vocation. The aides are trained to assist regular vocation instructors with Spanish-speaking students in areas of vocational training at the high school level.

The two year program consists of three phases: Phase 1 is the preparation of a research design and job analysis and curriculum recommendations for vocational programs for LES adults; Phase 2 is the development of a model vocational program in teacher aide education for LES adults which would train adults in entry level skills for the predominant vocations in Arizona; and Phase 3 consists of dissemination of the program model and recommendations for the technical linguistic composition of the model in other vocational-technical fields for LES adults in Spanish and other languages.

Supportive services include mandatory daily tutoring, guidance and counseling, financial aid, internships, and job placement. Materials development and ongoing evaluation of competencies acquired in the skill area and in English constitute important components of the program. In addition, the program uses classes from the ESL, reading and bilingual elementary teacher aide departments.

Students spend much of the second year mainstreamed into the general vocational program of the college. The areas of greatest need have been identified, and vocational clusters tentatively proposed for emphasis are automotive, electronic, and welding technology; nursing and nurses aide and the business areas of clerical, secretarial and word and data processing.

For more information, contact Dr. Carole Veir, Director, LES Adult Vocational Program, Mesa Community College, 1833 W. Southern Avenue, Mesa, Arizona 85202.

Excerpted from Forum, Vol. III, No. 10.

TEXT AND TOPICS

David Kieras, a psychologist from the University at Tuscon, is doing research on the effectiveness of topic sentences at organizing discourse and facilitating comprehension and reading ease.

College students are asked to perform certain tasks as they analyze paragraphs selected from scientific articles and textbooks: writing abstracts, stating what the topic of the paragraph is, stating the main idea, or giving a verbal protocol (speaking their thoughts out loud to a tape recorder). Three different dependent measures are used to clarify the nature and role of topic sentences: reading time, judgments of relevance to the topic, and "hang-ups" in protocol analysis. Kieras found that reading time increased as much as 50% when there was more than one topic sentence or when the initial topic sentence is removed from or buried within a paragraph. He also found that, in stating a few words as the theme of a paragraph, students most often use the first sentence as the source for this main idea.

Kieras's research program is funded by the Office of Naval Research as part of an effort to illuminate the psychological structure of instructional materials dealing with technical topics. As we gain more knowledge about how different types of sentences are processed in coherent paragraphs, we will be better able to devise empirically-based strategies and guidelines for writing technical prose.

For further information about his current work, contact Kieras at the Psychology Department, University of Arizona, Tuscon, AZ. 85721. DH

THE LANGUAGE OF TOURISM IN ENGLISH: ENGLISH FOR CAREERS

By Eugene J. Hall. New York: Regents Publishing Co., 1976.

The Language of Tourism in English (LTE) is one of a series of vocational English books for intermediate to advanced students of English as a Second Language/English for Specific Purposes. Like the other books in this series, LTE assumes that students have a good knowledge of English structure and read at a pre-university level. The purpose of the book is to give students a general idea of the rather complex field of tourism, and the vocabulary to find out more about the field in other, non-ESL publications. Students are expected to understand the English structures used in the readings, and to use these structures in answering the vocabulary and reading comprehension questions.

Each of the nine units starts with a glossary of the special terms used in the reading. The glossary is followed by questions about the new vocabulary, then a reading about some aspect of tourism, such as transportation, regulations, development, promotion, or employment. The units also include a fill-in-the-blank vocabulary exercise or a true-false reading comprehension exercise, a question-and-answer reading comprehension/discussion activity, and an additional activity.

The reading comprehension questions assess a variety of skills—looking for details, analysis and comparison and drawing conclusions. The additional activities range from discussion questions and writing topics to working out a promotional campaign or a sightseeing tour. The additional activities require the students to use their own cultures and experiences in performing the activity. The many illustrations of tourist spots and tourist activities used throughout the book also help students to relate to the material in the readings.

The Language of Tourism in English is not an ESP text in itself, since no structure exercises are included. As an informative, clearly-written book, LTE provides a good supplement to an ESP class. It would be helpful to have a key for the vocabulary and reading exercises, so students could use the book in an individual-study lab. As it stands, the book is best used in class. After finishing LTE, students would feel they had learned quite a bit about tourism as an industry, and enough vocabulary to go out and read more on their own.

DH

BIBLIOGRAPHIES

Language and Development: An International Perspective, examines the role of language in development and in various professions and is meant to serve as a vehicle for the exchange of ideas, information, and resource findings. This newsletter was developed as a means of continuing a discussion of cross-cultural and cross-linguistic experiences, projects, and research initiated at the 1978 Linguistic Institute of the Linguistic Society of America.

For more information contact: Braj B. Kachru, Coordinator, Division of Applied Linguistics, University of Illinois, 3150 Foreign Languages Building, Urbana, IL. 61801

South Asian Language Analysis (SALA) is a new journal which aims to make area-specific international research on South Asian languages available to scholars of these languages and to others interested in languages and linguistics. It has no set periodicity of publication and no set format. In addition to articles, the journal will consider publication of research papers, dissertations, data-oriented monographs, or pedagogically oriented manuals for teaching a specific language. For more information contact: South Asian Languages Analysis, Dept. of Linguistics, Univ.of Illinois, Urbana, IL.61801.

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MEETINGS AND CONFERENCES

One of the continuing aims of the Newsletter and the Clearinghouse is the dissemination of information concerning language for special purposes. To help us meet that objective, we encourage our readers to submit news of conferences and presentations dealing with English for Specific Purposes. We are especially interested in hearing of conferences and meetings abroad, and with as much advance notice as possible in order that interested readers have time to plan schedules and financing.

March 19-21	Georgetown University Roundtable on Language and Linguistics. The theme is Analyzing Discourse: Text and Talk. Contact: Dr. Deborah Tanen, Department of Linguistics, Georgetown University, Washington, D.C. 20057 U.S.A.	Georgetown University Washington, D.C. U.S.A.
March 26-28	2nd National Conference on Indochinese Education and Human Services. NAVAE. Contact Dr. Vuong Gia Thuy, 1123 Beverly Road, Jenkintown, PA. 19046 U.S.A. (215) 787-6258	Anaheim, California U.S.A.
May 9-10	International Linguistic Association (ILA) Annual Conference on Linguistics	Windsor, Ontario Canada
May 23-20	10th Annual International Bilingual Education Conference, Contact: John Correiro, Conference Chairman 49 Washington Avenue, Cambridge, MA. U.S.A.	Boston, Massachusetts U.S.A.
July 16-August 14	TESOL Summer Institute. Teacher's College Columbia University. Contact: John Fanselow Box 66, Teacher's College, Columbia University, New York, NY. 10027	New York, New York U.S.A.
July 27-31 August 3-7	Teaching Technical Communication Conferences (see story, page 2)	University of Michigan Ann Arbor, Michigan
August 17-19	3rd European Symposium on LSP (Language for Special Purposes) -- Theme: Pragmatics and LSP. Contact: The Organizing Committee of the 3rd European Symposium on LSP, Fagsproglift Center, Copenhagen School of Economics, 7 Fabrikvej, DK DK - 2000; F Copenhagen, Denmark	Copenhagen, Denmark

SHARING EXPERTISE THROUGH EXCHANGES

During the next several months, we will be presenting information on exchange models for teacher/teaching expertise in ESP-oriented institutions around the world. The Clearinghouse would like to hear from our readers about other models for ESP-oriented exchanges.

English For Specific Purposes

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FROM THE EDITOR:

The feature article this month was written by Ricardo Marzo, Academic Coordinator for Translex—Lima. Marzo is one of two teachers currently on exchange with the English Language Institute as part of teacher exchange arrangements worked out between the English Language Institute, Oregon State University, and other educational facilities currently engaged in ESP teaching/program activities. The May issue will provide a more detailed examination of the teacher exchange procedures, as well as information from Peter Geall, of Polytechnical Institute, Banbury, England, the second teacher on exchange from an ESP-oriented educational facility.

Marzo's article outlines the rather detailed and extensive ESP curricula designed by Translex to meet an ever expanding population of students desiring specialized English language training.

TRANSLEX: AN IMAGINATIVE APPROACH TO ESL - ESP IN PERU

By Ricardo Marzo,
Academic Coordinator,
Translex—Lima

Translex, one of Peru's most distinguished language-teaching institutes, is an international organization dedicated to the teaching of ESL-ESP through a system of its own. Its present educational structure includes ten programs geared to different sectors of the English-learning population, depending on such variables as age, education, type of work and goals. The following article presents a brief analysis of some of these programs with particular emphasis on the ESL-ESP transition.

For the past few years in developing areas of the world, there has been a growing consciousness of the attraction industrial societies exert among emerging groups of responsible adults whose aims are focused on self-realization through the tool of English, that prestige-laden symbol of achievement. This situation produced a frustrating gap between the upsurging needs of these adults, looking for faster communication results, and the traditional ESL programs administered by mammoth institutions oblivious to those needs.

Eager to accept such a challenge, in 1975 Translex set out to devise in Lima, Peru, an ESL-ESP system designed to effect the social and personal transformation of the adult via a labor-oriented second language. Accordingly, the language-learning process was divided into three increasingly specialized stages. In their present format, the first lays the basic audio-lingual foundations for the other two. The second level streamlines the process by offering four specialized alternative areas, each favoring one of the four basic skills. The third phase presents a choice of forty middle-level options, where the stress falls on ESP, and the student steps into the subjects of his preference almost unaware that he's no longer utilizing his native tongue. Upon successful completion of one or more of these courses, the adult will have accomplished the functional mastery of a tongue and a trade.

...Continued on Page Three...

☆ TESOL 1981: ESP AT THE CROSSROADS (PANEL) ☆

On Friday morning, March 6, a panel of ESP professionals moderated by Louis Trimble and composed of Robert Bley-Vroman, Thomas Huckins, Grace Mancill, Marjorie Morray and Larry Selinker discussed the subject "ESP at the Crossroads: Some Points Considered." The articles of Tom Hutchinson, Alan Waters and Philip King, previously published in the *ESP Newsletter*, (cf.#36,39/40) were the basis of a discussion which included Selinker's urgent call for research to determine what ESP students need.

Waters and Hutchinson's "ESP at the Crossroads" points out three developments in this area which cause them concern. The first is a trend toward isolating needs analysis from other aspects of teaching and learning. This divorce, they say, effectively annuls the *raison d'etre* of needs analysis, namely, providing appropriate design and materials for students of English for Specific Purposes.

The second problem described by the authors is the nature of the data identified by needs analysis. Greatest prominence is given to performance features, the material students are expected to master, rather than to the underlying competence they must develop in order to master it.

Closely connected with Waters and Hutchinson's second problem area is their third, which is concerned with instructors' use of texts dealing with performance features rather than basic skills. A difficulty commonly associated with this emphasis is a failure to employ a continuum of material, each part of which provides a context for that which follows. Without these contextual clues the student has no opportunity to develop strategies for exploiting them.

From their discussion of "disquieting" trends in ESP, the authors leap to the conclusion that "There is no justification for subject-specific ESP materials."

Philip King's response to Waters and Hutchinson questions the validity of their conclusion. Although he agrees with the importance of developing underlying competence, he rejects the idea that this means eliminating subject-specific materials from ESP curricula.

The panel discussion of the two articles began with a statement by Alan Waters in which he expanded upon his request for a curriculum designed to develop basic skills. In this he was supported by Hutchinson and Christopher Candlin. Larry Selinker asked how curricula to equip students with such skills could be prepared when there has not been sufficient research to determine what they are. He urged the necessity for greatly expanded investigation of ESP student needs and program design. Pertinent support for the use of subject-specific materials was provided by Philip King, Guillermo LaTorre and other members of the panel.

Inasmuch as little time was dedicated to the discussion of the methodological implications of the Waters-Hutchinson and King points of view, another discussion of "ESP: The Status Quo" was requested for TESOL 1982.

MKM

☐ NATIVE-SPEAKER READINGS IN THE ESP CLASSROOM ☐

Summarized from "Multi-Purpose Texts for Advanced Students of Business Studies" by Catriona Roberts in AL-MANAKH, Language Center Journal, University of Kuwait (Vol. 5, #1, January 1981, pp. 61-72).

At the English Language Unit Commerce of Kuwait University, 200 level elective courses are taught which rely heavily on content area (students must have completed three semesters of general English or been placed at an advanced level). English for Marketing (202) is one such course that is offered.

Various published articles were tried out in this course in order to generate students' application of consumer marketing concepts. It was found that students responded very well to native-speaker materials which had *not* been adapted for their use. *International Management*, a McGraw-Hill publication was found most successful because the English was not too idiomatic or full of technical jargon and because each article tended to be a factual case study. The approach presented here has been described for a marketing ESP course. It could, however, be applied in other areas of ESP.

Preparation of Article: Important facts and ideas were underlined. These would constitute the answers to scanning questions. The questions often required students to pull together two or more ideas in order to give a complete answer. Students worked with the article both at home and in class.

Exploitation: The article was divided into topic sections with reference made to those scanning questions which dealt with that topic. Students were placed in pairs and asked to prepare a mini-lecture on their particular topic section, using the scanning questions as a guide. Partners discussed content, and then the student that would be making the oral presentation practiced in front of his partner, who prompted and corrected when necessary. The lectures were then presented in sequence according to the article so that there was a logical progression through the material.

Written Follow-up: Students were asked to write about three topics of their choice (provided with six options). This could be done either in class or out. When done as homework, students were prevented from copying out chunks of the text by having their copies of the article collected (but not the accompanying scanning questions). This required students to rely on what they remembered from the reading, notes they took from the mini-lectures, and what they heard of the mini-lectures.

A number of variations to this approach are presented. For a more complete description, see the above-mentioned reference.

MM

EMPLOYMENT OPPORTUNITIES

Lockheed Aircraft International is seeking ESL instructors. They must possess the following: B.A./B.S. with a major in English or Education and a minimum of 2 years TESL/TEFL experience. If interested, call toll free 1-800-854-7751. If in California, Alaska or Hawaii call collect 1-714-988-2531.

TRANSLEX -- CONTINUED FROM PAGE 1

A closer look at the mechanics of the process will reveal additional detail: In the first phase, which has a maximum duration of twelve months, the adult acquires the basic skills that will permit him to undertake successfully the more specialized programs. The duration of this stage varies according to each individual's needs, previous knowledge, and motivation.

The second phase marks the departure point from most traditional EAP programs: first, because of its specialized nature; moreover, its courses are fully integrated into a bigger, coherent course network. Before entering this stage, the adult participants have determined, either independently or with the help of a counseling and orientation service, what occupational goal they wish to pursue. Their decisions are implemented then by the subsequent election of the courses that will best meet their needs.

In this phase the students encounter four options, each of which will eventually lead into one of four specific areas (See Chart 1). These options are considered "bridge" courses, as they are to fill the EAP-ESP gap. Each course has a duration of four months, during which the multi-skill approach of the first phase is replaced by an emphasis of one skill over the others. Thus, Guided Conversation emphasizes speaking abilities, whereas Business Communication is more interested in writing skills, and Technical Translation concerns itself more with reading techniques. Grammar Review, along with its listening/understanding component, frequently complements any of the other three.

Thus it is easy to see that adults' choice in the second stage depends on the area they will prefer in the third. An engineer will naturally take Technical Translation, while a prospective teacher of English might choose Grammar Review with a view to Linguistics courses; independent workers usually favor a Conversation course, as they are usually found in the Services field; and finally, secretaries, businessmen, etc., take Business Communication for further specialization in the Commercial area.

The third and final stage presents the student emerging from the previous phase with ten middle-level courses in each of its four areas (See Chart 2). The duration of each course varies from two to four months. The courses are designed not only to improve the students' command of specialized English, but also to provide authentic contact with the current state of their field, as practiced in English-speaking countries. At this level much homework is demanded, as well as participation in simulated on-the-job situations.

A special program within the third phase involves a credit system, whereby each course has a specific credit load. For this program, individually tailored schedules are prepared for all participants, depending on the areas in which they wish to specialize. In addition to class and home assignments, each course requires research papers and essays. When the students have successfully completed 36 credits (most of them in the third phase and the remaining in complementary second phase courses), they are considered middle-level specialists in one of the four areas.

Translex has found that the entire process is highly challenging, both for the student and the system: for the student, because it requires unfaltering dedication through what may amount to 2 or 3 years of ESP learning; for the system, because a steady supply of specialized courses, teachers, and texts must be kept available regardless of the number of participants involved. However, the institution is confident of the success of this approach, inasmuch as it combines students' high motivation with specific professional purposes attained through individualized academic objectives.

SECOND PHASE		THIRD PHASE
GUIDED CONVERSATION	>	SERVICES AREA
BUSINESS COMMUNICATION	>	COMMERCIAL AREA
TECHNICAL TRANSLATION	>	TECHNICAL AREA
GRAMMAR REVIEW	>	LINGUISTICS AREA

CHART 1

PROGRAM 5

SERVICE AREA	TECHNICAL AREA	COMMERCIAL AREA	LINGUISTICS AREA
21. Hotels	31. Medicine	41. Management	51. Advanced Grammar
22. Aviation	32. Engineering	42. Law	52. Competence
23. Tourism	33. Aeronautics	43. Accounting	53. Literature
24. Journalism	34. Science	44. Banking	54. Phonetics
25. Telex	35. Data Processing	45. International Trade	55. Methodology
26. Oratory	36. Agriculture	46. Marketing	56. Composition
27. Interpretation	37. Motors	47. Insurance	57. American History
28. Navigation	38. Energy	48. Merchant Marine	58. Linguistics
29. Archeology	40. Petroleum	49. Economics	59. Communicative Grammar
30. Counter		50. Publicity	60. Translation

CHART 2

PRE-VOCATIONAL TRAINING IN SELMA, ALABAMA

Cooperation between a southern U.S. community college in Selma, Alabama, and the Alabama Department of Pensions and Securities (DPS) has made possible a program of ESL language training for a Hmong community of approximately 135 in Selma, Alabama, U.S.A.

29 students are enrolled in ESL classes at the George Wallace Community College. The students, 30 percent of whom are preliterate, begin with basic survival English and move at their own pace through literacy training followed by a class in reading, writing, and math skills. The most advanced class offers guidance on how to enter the job market, providing practice in such matters as what to do at a job interview.

Child care and transportation are offered by DPS as support services for students enrolled in the ESL classes. In addition, a case worker, working with a Hmong interpreter, provides information and referral services.

A unique feature of the Selma program is its ten week pre-vocational course in shop math and blueprint reading for students with advanced language skills. Of the eight students who participated in a summer pilot course, four students were subsequently accepted into a training program at Beech Aircraft Corporation in Selma, a new aircraft assembly plant expected to bring an estimated 400-600 jobs to the Selma area.

Encouraged by the success of the pilot prevocational training course, program administrators have approached CETA, an employment training program funded jointly by the U.S. federal government and state governments to provide job training and jobs to those unemployed or under-trained for entry level jobs, to fund a full-fledged training program for refugees leading to jobs in local industry. According to the proposal, students who successfully complete the blueprint reading course would receive training from the Alabama Industrial Development Services before entering jobs with Beech Aircraft Corporation.

☆ ESP JOURNAL ☆

The ESP Journal, edited by Grace Stovall Mancill and published by the English Language Institute of the American University in Washington D.C., promises to be a valuable resource in the field of ELT/ESP. The lead article by John Swales, "ESP: The Textbook Problem" deals with a situation which is gradually being recognized as critical, namely, the failure of ESP texts to fulfil the objectives they have set for themselves. Then follow articles by F. Chambers, Ann Johns and Betty Lou Dubois on needs analysis, cohesion in written business, and the use of slides in biomedical speeches respectively.

The issue contains useful reviews of recent ESP reference and textbooks, among them Moore and Munevar's Reading and Thinking in English by David Wyatt and Lexden Papers 1: Essays on Teaching English for Specific Purposes by Waldemar Marton.

ERIC listings of materials in English for Vocational Purposes and a bibliography of publications received by the journal conclude the issue.

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SHORT FULL-TIME COURSE FOR ESP TEACHERS

The Institute for English Language Education at the University of Lancaster, England, offers regular advanced courses for teachers and teacher trainers involved in English for Specific Purposes.

Upcoming courses:	Application Deadlines:
April 24 - July 3, 1981	February 24, 1981
Oct. 2 - Dec. 11, 1981	August 2, 1981
Jan. 8 - March 19, 1982	November 8, 1981
April 16 - June 25, 1982	February 16, 1982

The course has attracted key personnel from a wide variety of institutions throughout the Middle East, South East Asia and Latin America, as well as other parts of the world. The participants' interests include teaching English for technical, scientific or vocational courses. In Lancaster the participants are exposed to the latest theoretical and practical advances in English for Specific Purposes. Considerable attention is given to providing workable solutions to problems in areas such as needs analysis, course and materials design, evaluation and the planning of future improvements in the handling of ESP in the local context. The wide experience of ESP in Lancaster, through the involvement of staff members in numerous projects at the Institute and abroad over many years, makes a considerable body of expertise available to participants in this course. In addition, members of the course-teachingteam have made frequent follow-up visits to countries from which participants have been drawn, and these activities have also greatly contributed to the understanding of the type of training most suited to meeting participants' needs.

NAFSA CONFERENCE

The National Association for Foreign Student Affairs Conference will be held May 26-29, in Nashville, Tennessee. Contact:

Rebecca Dixson, ATESL Chairman
3070 Foreign Languages Building
University of Illinois
Urbana, IL. 61801

☆ EDWIN T. CORNELIUS, JR. INTERVIEW ☆

New York: Longman Inc., 19 West 14th Street, New York, New York, 10036, 1981.

INTERVIEW consists of 10 recorded interviews on cassette and supporting material in a text. The level is high-intermediate to advanced. Each interview is an unrehearsed conversation between the author/interviewer and a person discussing his/her profession. The focus of INTERVIEW is listening practice, but related discussion questions, a reading and a writing activity are also included in each unit.

Each unit starts with a photograph, a brief explanation of the topic to be discussed and a short glossary of unfamiliar words and phrases. Students listen to the first of four parts of the interview, answer comprehension questions, then do a more focused, intensive listening exercise (listening to the tape again), and talk about the discussion questions. A similar format is followed in parts 2, 3 and 4 of each unit. Listening activities include finding synonyms, finding and finishing particular sentences, paraphrasing, assessing the accuracy of a quotation, and drawing inferences. At the end of the unit is a related reading, with a writing activity based on the reading. Generally, the readings are examples of the types of writing required: letters, memos, reports and newspaper articles. Complete tapescripts and answers to the comprehension questions are given in the back of the book.

INTERVIEW would work well in a listening comprehension segment of an ESL program, especially where students are interested in learning about American society. In terms of English for Specific Purposes, the subject matter of INTERVIEW is too general, except in an English for Careers class. Parts of INTERVIEW would be good supplements to an English for Business course. However, many of the professions in INTERVIEW are not realistic possibilities for foreign students — they are unlikely to become Hollywood actors, baseball players, police officers or circuit court judges.

While listening to natural, informal language is an excellent way to improve general listening comprehension, it does not meet the needs of many ESP students, who need to understand a more formal language specific to a particular field, such as business administration or engineering.

DH

BIBLIOGRAPHIES

☐ SPEAQ Journal is a quarterly publication concerning teaching of English as a Second or Foreign Language and containing theoretical and practical articles on aspects of language teaching at all educational levels. Subscription to the journal is only available to those who become members of SPEAQ.

For more information contact:

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☐ Studies in Second Language Acquisition addresses itself to the study of the process of acquisition of a second language and the relationship between the development of linguistic competence and communicative competence in a second language. The Journal tends to have a very theoretical emphasis.

For more information contact: Indiana University Linguistics Club, Lindley Hall 310, Bloomington, IN. 47401.

☐ English Language Research Journal is concerned with English Language teaching, learning and research, and covers a wide variety of topics including ESP, discourse analysis, language planning and syllabus/materials design. Articles, reviews, research reports and news items are invited.

Further information on courses, and Journal subscription details are available from: Mrs. Anne Preston, Secretary, English Language Research, University of Birmingham, PO Box 363, BIRMINGHAM B15 2TT.

"On the Composing Process" *(excerpted from Simply Stated No. 12, December 1980; monthly newsletter of the Document Design Center, American Institute for Research, Washington, D.C.)*

The Document Design Center is developing an advanced composition course which stresses the process of composing. Students will write and revise a variety of documents and also practice related skills, including finding and analyzing audiences outside the classroom and conducting empirical evaluation of a document.

Authors of the textbook tentatively titled Writing in the Professions, are DDC personnel Dixie Goswami, Associate Research Scientist, and Dr. Ginny Redish, Director, DDC.

Goswami and Lee Odell (SUNY - Albany) are compiling data about the process of writing. These researchers are able to categorize reasons writers give for making choices, which in turn provide information about the intellectual processes of writers. Insights about the range of rhetorical skills required of adult, non-published writers may have implications for the teaching of composition.

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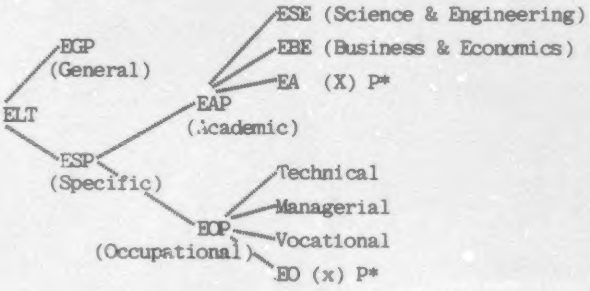
ASTON ESP COURSE - A REPORT

In the January 1981 issue (v.5, no.1) of the Al Manakh Journal of the Language Centre of the University of Kuwait, Andrew E. Seymour reviews the E.S.P. course he attended at the University of Aston, Birmingham, held July 6-26, 1980. Seymour is a member of the Faculty of Medicine, University of Kuwait. Designed for experienced teachers of EFL, its main purpose was to develop professional competence in the planning, writing and teaching of EFL language materials for specific purposes. (cf. ESP Newsletter, #46 for related course work, and this issue for the advertisement.)

John Swales, Director of Studies, is Senior Lecturer in ESL at the Language Studies Unit of the University of Aston, Birmingham. (cf. ESP Newsletter #48 for relevant Swales' article.) Lecturers included David Blackie, ESP editor for Thomas Nelson, and Professor Dennis Ager of Aston's Department of Modern Languages. A number of other noteworthy lecturers and course tutors participated from Birmingham, Sudan and Kuwait.

Coming from several nations including Bulgaria, Canada, Cyprus, Greece and Czechoslovakia, the participants were asked to view in some detail such textbooks as English for Specific Purposes, Susan Holden, editor, (Modern English Publications, 1977), English for Specific Purposes, R. Mackay and A. Mountford editors, (Longman, 1978) and ESP..., Pauline Robinson (Pergamon Press, 1980) In addition, teachers were encouraged to avail themselves of the "ESP Archives" assembled at Aston.

In Mr. Swales' opening lecture, he noted the importance of English as an international language of communication, reiterating that if English is taught as an end in itself, it is not ESP. The issue surrounding the importance of the acronym E.S.P., where S. stands for 'specific' rather than 'special' was again presented by Swales, who elaborated further upon the gap between the E and SP. (cf. Diana Adams-Smith, "Cooperative Teaching: Bridging the Gap Between E and SP," Al Manakh, v.2, #2--available from the Clearinghouse). Mr. Swales summarized the main types of ESP by using the following diagram:



*EAP may be either pre- or in-study (independent or integrated); EOP may be either pre-simultaneous or post-experience.

Meriel Bloor and Vijay Bhatia jointly lectured on legal English. They pointed out that there is no variety of English clearly identified as legal English. Rather, one must deal with the language of court-room English, the language of legal documents, and the language of law textbooks.

...Continued Page 8...

REPORT ON ASTON ESP COURSE...CON'T.

The balance of Mr. Seymour's report covered such areas as teacher training in ESP, needs analysis, and functional analysis. In terms of instructional theories, there were discussions on the aims of teaching grammar, definition, and writing; teaching reading and vocabulary, and teaching advanced writing.

This summary of Mr. Seymour's report is by no means complete. If the ESP Newsletter readers wish to have a complete copy, please contact the Editor.

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Year 5 subscriptions will cover the period April 1981 to March 1982; prices per below. Mid-year subscriptions are backfilled to Issue 49 (April 1981).

Due to increases in printing and mailing costs, the Clearinghouse is forced to raise the cost of subscription to the Newsletter. We will accept Year 5 subscriptions at the previously published rate (See Issue 46) until March 15. After March 15, 1981 subscriptions will be entered at the rates printed below.

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English For Specific Purposes

SPECIAL ISSUE

"TEACHER EXCHANGES IN ESP PROGRAMS"

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FROM THE EDITOR

This special issue of the newsletter focuses on teacher exchanges between ESP programs. It is really a continuation of the examination begun in the last issue.

Our feature article in that issue was by Ricardo Marzo, on exchange from Translex-Lima, who outlined the ESP curricula designed by Translex to meet student needs. Our feature article this month examines exchanges in depth, considering their benefits and drawbacks, as well as procedures for establishing an exchange.

We continue the focus on exchanges with an article by Peter Geall, on exchange from English Language Training Centre, Banbury, England, who contrasts ESP in Britain with what he has experienced here at the English Language Institute.

Our final examination of exchanges is a survey from soliciting readers' thoughts and guidelines on exchanges, with the ultimate goal of fostering interest in exchanges between ESP institutions.

SETTING UP AN EXCHANGE

By Deborah Healey, in collaboration with Ricardo Marzo and Peter Geall

Exchanges have much to recommend them: a chance for individuals to see another program, another culture, from the inside out; an opportunity for other staff members to hear first-hand how people in other institutions perceive ESL/ESP; a chance for administrators to find out about the strengths and weaknesses of their own programs, through contrast with another. The disadvantages of exchanges lie primarily in the extra paperwork and extra expense.

The key to a successful exchange is motivation. Everyone involved has to be willing to put up with the extra work — someone has to send the letters, fill out the forms, find the money for traveling and setting up a new household, help the incoming person fit into the new institution and new culture.

Once the motivation for an exchange is there, the setting-up can begin. We at the English Language Institute (ELI) at Oregon State University have two exchanges that started in January: one with the Lima, Peru, branch of Translex, an international English Language training program; and another with the English Language Training Centre, Banbury, England. The idea was initially proposed after personal contact. The director of Translex, Jaime Po[illegible], had come to the ELI two years earlier, and so was familiar with the people and program here; one of the ELI staff, Edith Madden, had spent part of a leave of absence in England and had visited the ELT Banbury.

The exchange started as an informal suggestion. After the staffs discussed the idea, letters of interest were sent. At this point, the process for the two exchanges began to differ.

On the Peruvian side, Jaime Ponce from Translex visited the ELI in April and explained how Translex was organized and run; around May, formal accords were drawn up, setting out the terms of the exchange. The agreement with Banbury was somewhat less formal (see Peter Geall's related article on page 3).

At Translex, notices were sent out to the staff in June, to see who would be interested in coming to the ELI. About twenty people responded with a letter of interest. The Translex Department of Relations and Resources devised a list of requirements, such as years of experience, symposia attended, past and present duties and responsibilities, and foreign experience. Each requirement had a point value. Interviews were conducted by the Performance Evaluation Office, and the candidates were assigned scores based on the total number of points they had for the requirements. These scores were given to the Translex director. In September the director, in consultation with the ELI, selected an exchange teacher. Ricardo Marzo was then notified that he had been selected, and the legal paperwork was started. There were some attempts made to get third-party funding for travel expenses, but lack of time made that impossible.

On the ELI side, once the accords were in place, the administration selected an exchange teacher; Karl Drobnic's resume was then sent to Translex and approved. As part of the accords, the ELI arranged and paid for a dormitory contract (room and board) for Mr. Marzo. In addition, the ELI is paying the salary and travel expenses for our staff member, Mr. Drobnic. Translex is paying Mr. Marzo's travel expenses and his regular salary plus a 30% cost-of-living adjustment. This has proved relatively expensive for both institutions, so third-party funding for travel may be a prerequisite to a second exchange. Financially speaking, it would be more equitable if the host institution paid the salary of the exchange teacher at the local rate, especially when there is a substantial difference in the cost of living in the two countries. Unfortunately, legal problems are a great barrier to such an arrangement.

Legally, it is easier for each institution to continue to pay its own staff member. That way, the person entering the U.S. needs only a J-1 (exchange visitor) visa, which is relatively easy to obtain. The exchange teacher needs the form, signed by the U.S. institution, and a letter from the teacher's own institution stating that it will be paying that teacher's salary. Our exchange teacher in Peru just had to have a three-month visitor's visa with a three-month revalidation for the six-month exchange. The British visa was also no problem; all that was necessary was a letter from the ELI, stating that the ELI would be paying our staff member's salary, and a letter from Banbury, confirming her exchange visitor status.

As stated before, the Banbury exchange was set up somewhat differently from the Peru exchange. Preparations for this exchange began shortly after those for Peru. The Exchange Committee was formed to set criteria and choose the staff member to go to Banbury. Criteria included experience relevant to the duties that would be assigned at Banbury (in this case, ESP teaching and materials development experience); willingness to pay for travel and moving expenses beyond the $500 flat sum provided by the ELI; previous experience abroad, for adaptability; and need for teaching experience abroad, to allow more staff members to get this experience. All other factors being equal, preference would be given to the person with the most seniority at the English Language Institute.

After the Exchange Committee selected Barbara Dowling to go to Banbury, her vita was sent there for approval. The ELI, in turn, received and approved Peter Geall's resume. At that point, the housing search started. The Dowlings could take over Mr. Geall's flat, paying his rent. However, the mortgage and utility payments on the Dowling house were too high for a reciprocal arrangement to work. The Exchange Committee located and put a deposit down on a partially-furnished apartment for Mr. Geall, and various staff members loaned him miscellaneous household items.

A courtesy staff appointment to Oregon State University was the final piece of paperwork necessary before the two exchange teachers could begin to hold classes in January. Besides holding classes, the exchange teachers have given presentations for the staff on different subjects, including their institutions, the differences they have seen here, and special problems of their students learning English. All four exchange teachers have visited ESL/ESP programs at other institutions, which should be of benefit to their institutions when the exchange teachers return home.

Based on our experiences in organizing these two exchanges, future exchanges will be set up slightly differently. First of all, there will have to be more lead time. Third-party funding for travel through Fulbright-Hayes, through USAIS, or through institutional faculty grants, might then be possible. It would also be much easier for the exchange teachers to take care of personal arrangements. Nine months lead time would be the minimum to set up a new exchange, and six months the minimum for setting up a repeat exchange. Secondly, duties expected of the exchange teachers should be set out in detail, and as much information as possible about the cost of living obtained. We are requiring our exchange teachers to file a report when they return, listing the problems and benefits of the exchange, what the next exchange teacher should take along from the U.S. and what s/he can find in the foreign country, and anything else that the teacher feels would be of use to the next person. We hope that this will help smooth the way on a repeat exchange, both administratively and personally.

Our exchanges are not yet completed; this summer, when both of our staff members have returned and have had a chance to put the exchange experience into perspective, we will have more ideas about what to do next time to make the exchanges better for all concerned.

THE BANBURY/OREGON STATE UNIVERSITY EXCHANGE

By Peter Geall

In the summer of 1980, during her visit to the United Kingdom, Edith Maden, Assistant Coordinator of the English Language Institute at Oregon State University, proposed an exchange of teachers between the English Language Institute and English Language Training Centre, Banbury. This exchange has been in progress since January 1981, involving Barbara Dowling of the ELI and Peter Geall of ELT Banbury.

ELT Banbury is a privately owned training centre in the North of Oxfordshire, England. It concentrates on Special and General English programmes for students intending to study at further education establishments in the United Kingdom. Students number from 50 to 80 and there is a full time teaching staff of 7, under the direction of Dr. Terence Gerighty.

There are substantial differences between EFL programmes in Britain and the United States. So, for the exchange, the transatlantic teaching experience will be a personal and professional challenge. The host institution will be refreshed by the presence of an outsider with varying ideas and approaches.

An American teacher will find differences in materials used in Britain with the need to cater to less able students and current trends toward "communicative" language teaching. A wide range of such material is being made available by a highly competetive EFL Publishing industry. EFL students in Britain are generally drawn from different national groups, the chief difference being the relative absence of Japanese and South American students and the presence of larger numbers of students from Europe.

In addition to publicly funded programmes for Adult Literacy and Refugee groups, there exists in Britain a well developed private EFL industry beyond the limits of state financial control. It should be pointed out that a good school will nonetheless be "recognised as efficient" by the Department of Education and Science, and will probably be a member of A.R.E.L.S., the Association of Recognised English Language Schools.

Classes are generally smaller in Britain—a much publicised sales point. Teaching is, with the exception of these students studying for Cambridge examinations, less likely to be geared to examinations such as the TOEFL test. The emphasis is mainly on survival skills in the early stages, followed by specific ESP courses for students' college work. At Banbury this has led to the enactment of programmes in English for Maritime Studies, for Police Studies, for Air Traffic Control, for Navigation, for Business and Medicine, in addition to special intensive courses for the Institut Auguste Comte, a senior management training institution financed by the French government. Preparation of such courses does require a degree of flexibility; but it is most stimulating.

One difference which I have not mentioned, but which should by this stage be apparent, is the twist in our common language occassioned by the use of such words as "programme" (sic) and "publicise". Those interested further in the vagaries of the Queen's English are invited to identify the following; not, I would hasten to add, that Her Majesty would necessarily use all of them.

1. a bit of crumpet
2. a punch up
3. the old Bill
4. a thunder box
5. snout
6. Coronation street
7. one's trouble and strife
8. a charlie
9. a bloke
10. a gasper

(Editor's Note: see page 7 for answers.)

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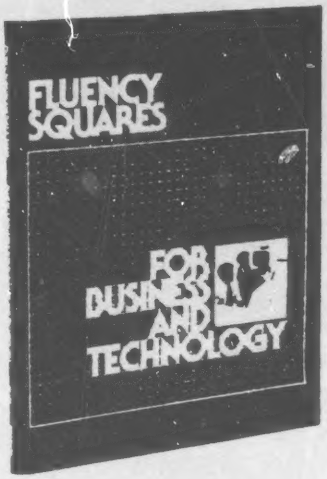

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ENGLISH FOR INDUSTRIAL PURPOSES

In Kitimat, British Columbia, Canada, a language program that represents ESP in its truest sense is taking place. At the Alcan aluminum smelting plant (Alcan Smelters and Chemicals, Ltd.), a large percentage of the company's employees are immigrants who are non-native speakers of English. There is a great variety of language backgrounds with Portuguese the most predominant. In an attempt to bridge this language gap, representatives of Alcan, the Canadian Association of Smelter and Allied Workers, Northwest Community College, and Canada Manpower Consultative services have been pooling their resources since 1975, with the resultant creation of English Language Training and related services for over 300 employees with limited English language skills.

NEEDS ASSESSMENT

In determining if ESL training was really necessary, the following questions were asked with regard to Alcan's workers with limited English skills: Is safety jeopardized because of misunderstandings? Is work performance unsatisfactory? Does the worker have difficulty coping with change and innovation? Does the worker exhibit tension and is there friction with co-workers? Is the worker not moving upward in the company as fast as equally competent native speakers? Do the worker's limited English language skills keep him from maximum union participation? Is the management potential of the worker lessened due to lack of English skill development? An affirmative answer based on language factors may indicate English language training is necessary. At Alcan, potentially dangerous situational inefficiency, and the stagnation of good human resources were found to be key issues, and English language training was initiated.

Christel Nierobisch and Norman Dooley, the ESL instructors for the program, began by familiarizing themselves with Alcan's smelter and its employees. During this month-long period, nearly every department was visited and different work shifts were observed. The language instructors spoke with union representatives, foremen, engineers, and various levels of Alcan administration. The main emphasis, however, was in conducting informal interviews at the workplace with over 150 employees whose supervisors felt they could benefit from English language training. The interview questions were designed to assess how much English a worker already knew and to find out where, when, and for what purpose he needed to use English. This needs assessment revealed a wide gap in language proficiency and worker concerns.

INSTRUCTION

Initially short-term courses were offered, but these have evolved into an on-going program which now provides extensive exposure over a six-months' period. Classes are held at Northwest Community College and are offered both mornings and evenings in order to allow all shift workers to attend on a regular basis. Each class meeting is treated as a self-contained unit so that if a worker does have to miss a session he won't be behind in subsequent classes. The course has been designed to emphasize on-the-job communication and understanding of the printed materials used in training and at work. Focus is given to those language skills needed by employees in order to perform their jobs satisfactorily, e.g. using the telephone, reading signs, understanding safety procedures, asking basic questions, giving and following instructions, making requests, initiating and sustaining conversations, writing memoranda and reports, filling out forms, and reading and understanding the training manuals. Both the company newspaper and the union publications are also used as reading material. One interesting work-related component of the program termed the "Horse's Mouth", concerns the workers' knowledge of issues in and around their work. Because so many workers rely on erroneous information attained second-hand from co-workers, key figures are invited to the class to discuss their areas of expertise, e.g. payroll, transfers, health studies, union negotiations, etc. By opening up these channels of communication between workers and authorities, the students gain the confidence and practice necessary to go directly to the source of information of the "horse's mouth." This importation of authorities from various departments is indicative of the instructors' policy of not trying to be the experts. They realize their technical limitations and feel it is healthy to involve Alcan and union personnel as much as possible.

RESULTS

The English Language Training program has had significant impact on the ability of limited speakers of English to cope with training, job performance, and social relationships both at the work site and within the union. These workers are now speaking up more—offering opinions and asking questions. They are benefiting more fully from training because they are able to cope with the training manuals and written examinations. Union participation has been enhanced, and the workers are now able to perform certain functions independently, e.g. filling out a grievance form without assistance. In some cases the increased English proficiency has contributed to advancement.

Taken from: A Conference Report: English Language Training for Immigrants in Industry, sponsored by Manpower Consultative Services Committee, November 1979, Kitimat, British Columbia, Canada; and from a workshop presented at the 1981 TEAL/TESL Canada Conference, Vancouver, B.C.: "English Language Training for Business and Industry" by Norman Dooley and Christel Nierobisch.

For further information in this area, Tom Jupp's book, Industrial English has been recommended. Mr. Jupp is the Director of the National Centre for Industrial Language Training in England

M.M.

ERRATA

In Issue #49 the initials of Deborah Marino, DM, were omitted from the articles entitled: "On the Composing Process", and "Aston ESP Course-A Report".

A COURSE IN INTERMEDIATE SCIENTIFIC ENGLISH

Frank Chaplen
(Evans Brothers, Ltd. 1981)

Chaplen's textbook is a useful addition to EST literature in its emphasis on the development of reading skills and the understanding of vocabulary and grammatical structures commonly employed in scientific/technical writing. Obviously, efficient reading habits are a primary need among students of science and technology; A Course in Intermediate Scientific English provides valuable guidance and practice in many aspects of that skill area.

Each of the book's eight units contains five reading passages, four of which are preceded by questions which assist students in picking out salient information. Thus, the learner's scanning skill is enhanced. All passages except the last, Reading for Pleasure, deal with different aspects of one topic, contributing to a continuity of subject matter throughout the unit. The first reading comes at the beginning of each unit. From it vocabulary and structure exercises are drawn. The concluding feature of the units is a serialized version of Ray Bradbury's Dark They Were and Golden-Eyed, which students are to read for pleasure and which should provide material for class discussion.

In addition to the development of reading skills, Chaplen's text includes work in listening comprehension, writing and mathematics. The topics dealt with in the first two areas are closely connected with the main subject of the unit, although such coordination is more difficult in the case of mathematical information.

Despite Chaplen's generally successful efforts to tie together the contents of each unit, the broad scope of his objectives and materials interferes with overall coherence. The mathematics section, in particular, seems to interrupt continuity, although the knowledge of concepts and symbols it promotes are important to an ability to read scientific literature. As stated above, finding mathematical material exactly appropriate to the subject of each unit is undoubtedly difficult.

Another problem I find in A Course in Intermediate Scientific English is page format. Many pages have very large left margins (2½+") with the print occupying 4¼" on the right side of the page. Although the left space is frequently used for illustrations and topic headings, that area is just as frequently blank. The result is dense and crowded, difficult of access for the early ESL reader. Moreover, to one accustomed to think in terms of conservation of resources, such use of the printed page seems wasteful without compensating advantages.

Nevertheless, Chaplen's book appeals to a range of objectives and interests among students of English for Science and Technology. Furthermore, it should provide no difficulty to teachers who are not specialists in these fields. In addition to readings which are not difficult for the lay person to understand, there is a teacher's book and a cassette with the core reading passages, the listening comprehension texts & math exercises.

M.K.M

Book Review: READING AND THINKING IN ENGLISH: DISCOURSE IN ACTION.

Developed by members of the University of the Andes; edited by John Moore and series editor H.G.Widdowson. Published by Oxford University Press (1980), Walton Street, Oxford, OX 2 6DP, England.

Discourse in Action is the fourth book of the four-part series, READING AND THINKING IN ENGLISH. The series is designed to improve reading comprehension of academic material. This volume is to help advanced students with different academic interests improve their ability to read, analyze and interpret university-level written technical material. Discourse in Action has roughly sixty hours of class material; the teacher's manual, with teacher's notes and a key, can be used for individual study.

Readings include articles on noise pollution, parapsychology, technology in developing nations and nuclear energy. There are the usual reading comprehension exercises—reading for detail and finding the main idea—but in addition, students are asked to:

- judge the writer's attitude toward the information presented, determine if the material is fact, hypothesis or generalization;
- find hidden assumptions;
- make inferences and see implications;
- perform an activity related to the reading, but based on outside sources.

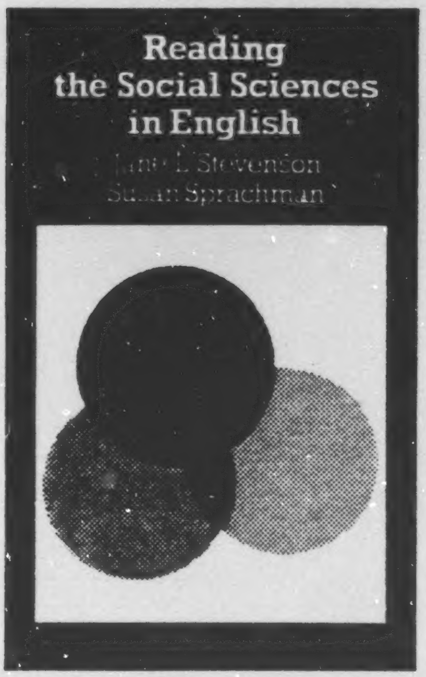
Three basic types of writing are presented: exposition, enquiry and argument. Readings in the first part (Phase 1) of the book are relatively pure examples of each type; Phase 2 readings are combinations of types. Readings are progressively longer in succeeding units of the book.

The authors take a functional approach, having students apply information in the readings to make diagrams, write reports and letters, take part in discussions and perform experiments. In Phase 1 units, students answer specific questions and practice particular reading and analytical skills; in Phase 2, students have an assignment, and must use a variety of skills to set it up and carry it out. Phase 1 is preparation for college classes; Phase 2 is practice.

The teacher's guide has a number of suggestions for designing a smooth-flowing course. It does not outline what should be done step by step, every step of the way, but rather points out what the authors feel should be stressed, and when. It gives examples to use in explanations of potential trouble spots and has additional activities to use with the units.

Students can use the teacher's guide to Discourse in Action for self-study, as with other volumes in the Reading and Thinking series. However, these are high-level skills being taught, so activities and assignments are as open-ended as possible. Naturally, open-ended assignments do not have just one right answer, and so are more difficult to correct. The key gives a range of answers, when possible, but students using this book outside a class will probably need to have their work looked at frequently. Phase 2 assignments will have to be corrected by a teacher.

(Continued on page 7)



Reading the Social Sciences in English

Jane L Stevenson
Susan Sprachman

A new reading course which introduces students to the main branches of the social sciences.

The ten Units each contain a text (with pre-reading questions), followed by exercises and related study points.

Reading the Social Sciences in English familiarizes students with the structure of essays, sentence patterns and vocabulary commonly found in social science texts. In this way, mastering the language and understanding the subject matter are developed together. The book can be used in class or by students working on their own, and answers to exercises are given at the back of the book.

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THIRD ESP CONFERENCE AT BOUMERDES, ALGERIA

A conference on the Teaching and Testing of Reading and Writing in ESP took place at INELEC (Institute National d'Electricite et d'Electronique) in Boumerdes, Algeria, on February 11, 12, and 13. This was the third annual ESP Conference to be held in Boumerdes, and the first to deal with specific areas of ESP teaching. Over a hundred participants came from the universities, technical training colleges, secondary schools, and other English language programs all over Algeria to hear speakers from Algeria, Great Britain, and the United States. Opportunities were provided for individuals to share ideas on research, materials, teaching techniques, and curriculum both in the Algerian context and in the world-wide context of ESP teaching.

Organized by Mr. Hamid Kherief, Head of the Humanities Division at INELEC, the presentation topics were selected according to the needs and interests expressed by Algerian teachers the year before at the ESP Conference held at INPED (Institute National de la Productivite et du Developpement Industriel). Following each presentation there was often a workshop and a questions-and-answer session. A book display organized by INELEC and the U.S. Cultural Services in Algiers contributed further ideas to the conference.

The following presentations were given:

Wednesday, February 11
"Reading, Re-reading, and Re-re-reading Exercises" by Mark and Benitta Dunning, IAP, Boumerdes.
"Teaching Structured Writing" by Margot Kimball, Fulbright Professor, Sarajevo, Yugoslavia.
"Vocabulary Meaning in Context" by Faiza Bensemmane, University of Algiers.

Thursday, February 12
"Designing an ESP Test: The INELEC Exit Criteria Exam" by Hamid Kherief, Hamid Nezzar, Judith Hearn, and Barbara Killefer, INELEC.
"The Construction and Use of Multiple-Choice Questions for Reading Tests in ESP" by Katherine Muhlhausen, Fulbright Professor, Algiers.
"Split: Secondary School Technical English" by Malcolm Johnson, British Council, Algiers.
"Definitions: A Testing Case for ESP" by John Swales, University of Aston in Birmingham.
"Assigning and Grading Free Compositions" by Margot Kimball, Fulbright Professor, Sarajevo, Yugoslavia.

Friday, February 13
"Developing Curriculum Objectives: EST at INELEC" by Barbara Killefer, INELEC.
"Use of the Language Laboratory in Teaching Foreign Languages" by Afif Bellas, Union Arab de Fer et d'Acier, Cheraga.
"The Rhetorical Function in EST/ESP Reading and Writing" by Russell Alexander, IAP, Boumerdes.

At the final plenary session, the conference participants agreed that such conferences should be held more than once a year since the exchange of ideas was extremely helpful and since ESP teaching has become very important in Algeria. Plans are being made to hold another similar conference in the Spring of 1981 at the University of Constantine, and of course a fourth annual conference is being planned for next year at Bourmerdes, Inshallah!

(Continued on page seven.)

ANSWERS — CONTINUED FROM PAGE THREE..............

1. a comely young lady
2. a fight
3. the police
4. a bathroom
5. tobacco
6. popular TV soap opera
7. one's wife
8. a fool
9. a man
10. a cigarette

DISCOURSE IN ACTION -- CONTINUED FROM PAGE FIVE...

Discourse in Action is a reading course; however, it could be used as part of a writing course. The readings can be used as models of the three types of discourse, and writing assignments can be made longer. Students would need more precise instructions on writing mechanics—the format of a report, for example.

Discourse in Action is English for Academic Purposes. It goes beyond decoding phrases and finding topic sentences for paragraphs; the focus is on reading and analyzing items considerably more than a paragraph long. Students are to find out not just what the author wrote, but why; not what was written, but what was meant. This sort of analysis is at the core of university study. D.M.

ESP CONFERENCE — CONTINUED FROM PAGE SIX..........

Anyone interested in finding out more about these conferences should contact Hamid Kherief, Department d'Anglais, INELEC, Boumerdes, Algeria.

WHAT ABOUT YOUR INSTITUTE?

With this special focus issue, the Newsletter staff wishes to spark interest in the topic of institutional teacher exchanges, specifically in the area of ESP. The ESP Newsletter, therefore, will act for a limited time as an Information Clearinghouse for ESP Teacher Exchanges. If your institute would be interested in an exchange, either at the domestic or international level, please complete the interest survey below. The Newsletter staff will compile this information and make it available to its readers for a $1.00 fee. In this way, it is hoped that institutes will receive maximum opportunity to make known their specific desires for teacher exchanges.

If interested in an exchange, please fill out the form below with complete information, detach and return to Kathryn Michaels, Editor, ESP Newsletter. (Perhaps if you have not already done so, you could renew/make your subscription for YEAR 5 at the same time!) (See back cover.) In order for your information to be included in the listing, respond no later that SEPTEMBER 1, 1981. Thank you.

Name of institution: ______________________________

Mailing Address/Telex Number/Phone Number: ______________________________

____

Contact Person: ______________________________

Optimum Time of Year for Exchange: ______________________________

Length of Exchange: ______________________________

Anticipated Duties: ______________________________

____

____

Financial Arrangements: ______________________________

Preferred Exchange Site(s): ______________________________

In fifty words or less, please state your institute's interest in pursuing ESP Teacher Exchanges. Also, include any examples of such exchanges the institution has participated in, and any relevant details which would help another institution evaluate your interest/expertise.

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Year 5 subscriptions will cover the period April 1981 to March 1982; prices per below. Mid-year subscriptions are backfilled to Issue 49 (April 1981).

Due to increases in printing and mailing costs, the Clearinghouse is forced to raise the cost of subscription to the Newsletter.

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English For Specific Purposes

SPECIAL ISSUE
ESP IN CHINA, PART I

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FROM THE EDITOR:

Our guest editor, George Scholz is at present Chief of Party, UCLA-China Exchange Program, Canton, PRC. In 1979-80, he served as Director of Studies, Binational Center, Porto, Portugal. Between 1977-79, he was an Instructor of English, Institut National d'Electricité et d'Electronique in Boumerdes, Algeria.

INTRODUCTION

ESP AND CHINA: SOME OBSERVATIONS

George Scholz

> *After the '10 lost years (of the Cultural Revolution)' they had to take some chances to catch up with the Western world...China decided to send some of its best scholars to live abroad, to soak up the latest in science and bring it home...Most of the 4000 Chinese, fanned out to 170 US institutions, are studying the hard sciences such as physics, mathematics, chemistry or engineering (The Chicago Tribune, January, 18, 1981).*

Innate in this contemporary circumstance is the attactiveness of English for Specific Purposes (ESP) as a language program design in the People's Republic of China. More directly, a further refinement of ESP applicable to the PRC context would yield an English for Academic Purpose (EAP) focus, a concern "with those communicative skills in English which are required for study purposes in formal educational systems...(of which) the key area within EAP is perhaps English for Science and Technology" (ETIC, 1975:1). Indeed, given China's current national policy of the "four modernizations" of agriculture, national defense, industry and science/technology, the much publicized clamor for English by the Chinese learner becomes better explainable and the need for ESP more essential.

As approximately 90% of the Chinese university population is studying natural and social sciences (Cowan et al. 1979:472), the need for ESP exists. This necessity, however, should be juxtaposed with reality:

1) ESL/FL Methodology. Systematic training in English language teaching, a prelude to ESP, was "virtually non-existent" (Cowan et al. 1979: 492) in 1979 and still remains inadequate today. Moreover, Patrie and Daum (1980:393) suggest that "it is the inability of most of the teachers to cope with meaningful communication in English, and not their lack of training in methodology, which precludes their using what current views in ESL would regard as more desirable methods." Given the influx of Foreign Experts trained in ESL/FL, however, this situation is being slowly remedied for the short-term. More importantly, the training of Chinese ESL/FL instructors in universities in the UK and US should ensure long-term remediation of the present situation.

2) Textbooks. Apart from a dearth of commercially available ESL/FL texts in the PRC, Chinese generated textbooks are based on a very strict control of grammatical points, producing passages "which often sound unnatural and artificial"; they rarely, if ever, present opportunities for students to engage in meaningful communication" (Cowan et al. 1979:470-471). A word by word explication de texte is the resultant instructional norm (Scovel and Scovel 1980:3).

3) Learner Strategy. Most Chinese language learners tend to rely on rote memorization as the optimal strategy in language learning.

Given the above features of the EFL context in the PRC, it is not surprising that a widespread ESP movement remains in infancy. However, as the Maoist dictum that theory unrelated to practice is discredited guides China, an enormous effort to improve English language teaching is being made by the Ministry of Education, Chinese EFL instructors and Foreign Experts. This combined effort under very difficult circumstances is highly laudable.

The theory to practice issue is germane to ESP as well. Presently, ESP contains many unanswered questions and many more opinions as to:

1. What is ESP? What are the commonly accepted types and subtypes of ESP?
2. Must all ESP courses/programs be designed for a narrow, homogeneous population, or can there be effective general ESP courses?
3. What must a researcher/materials developer know about an ESP register before s/he can develop a curriculum?
4. What ESP research or curricula presently exist?
5. What about testing, approaches (methodologies) and teacher-training in ESP?

(Carmichael and Johns, 1981).

Further crucial issues are delineated in the report of the 1977 ESP Seminar in Bogota, produced by the British Council:

1. The extent to which a needs analysis determines a syllabus content.
2. Whether ESP necessarily involves an ESP approach.
3. The extent to which one can use students' existing knowledge of how language is used to communicate.
4. Whether one should aim for more standardization in ESP courses.

(Moody and Moore, 1977:9).

Some interesting parallels exist between China's development in English language teaching/learning and the state of the art in ESP internationally:

1) ESP Methodology/Training. There has been a relative paucity and consequent growing request for ESP training at the M.A. ESL/FL level (Ochsner, 1980). Most ESP knowledge has been experientially based, presumably by a language instructor's working in a program where the concept of ESP is supported. State of the art ESP Methodology/Training remains more a state of mind than a posited empirically explorable construct.

2) Textbooks. A plethora of textbooks bearing mention of a special or specific intent coupled with a communicative cliche now exists. If the title fits, the learner buys the text in the hope of improving his English for his work. Alternatively, given a rigorous needs specification a la Munby or an eclectic variant thereof, many programs find an inadequacy of published materials. Hence the wheel is many times reinvented, often by personnel lacking experience in ESP methodology/training, materials development or both. ESP textbooks should be examined in terms of adaptability to a language program, as no ESP program will or should be a clone of another. Adaptability should be related to what is currently known about language learning as well as what a learner will or may need. Well-written, conceptually sound ESP materials are always desirable if time, personnel and finance are available.

3) Learner Strategies. ESP assumes use of a language rather than discrete manipulation of usage (Widdowson, 1978). This begs the question of what kind of learner is necessary for ESP. If ESP attempts to develop a language-as-process approach, will this direction be learner centered? How can learner strategies such as rote memorization be acclimated to an ESP context? How can an ESP program instill in the learner strategies for developing language ability appropriate to specific professional field or academic goals? How may ESP be developed as a system of belief, an essential criterion for language learning, compatible to both teachers and learners of various backgrounds and experiences?

John Oller (1979:152) has pointed out that "a theory which cannot be 'mortally endangered' is not alive." ESP is certainly alive and constantly questioned. Theory buttressed by the empirical, experiential and descriptive is one continuum along which practice moves. Herein lies the paradox of ESP: healthy questioning of ESP may create instructional and programatic inertia leading to a retrenchment to traditional language teaching/learning without further exploration of possible ESP alternatives. Lacking exploration, ESP is denied viability and believability as an integral component of ESL/FL instruction.

A diplomat in China once remarked that upon arrival he had all the answers for the world's oldest civilization. After a period of time in residence he had two observations: that China was big and it had a lot of people. Two paraphrased observations can be given for ESP: it's big and it generates a lot of questions. It is hoped that the UCLA-China Exchange Program issue of the ESP Newsletter can clarify or offer insight into ESP in its developmental stages in the People's Republic of China.

I. OVERVIEW

THE UCLA-CHINA EXCHANGE PROGRAM-TESL

In coordination with the Ministry of Education, the Academy of Science and the Institute of Foreign Trade, the University of California-Los Angeles (UCLA) established three English language centers in the People's Republic of China in September, 1980:

1) Guangzhou (Canton) - (GELC)
Guangzhou English Language Center

2) Beijing (Peking) - (GSELC)
Graduate School English Language Center

3) Geijing (Peking) - (BELC)
Beijing English Language Center

In order to establish a curriculum relevant to the linguistic needs and academic aspirations of the Chinese scholars at each of the three centers, a planning and materials development session was held at UCLA during the summer of 1980. Involved were future Chinese and American staff for the centers. The basic curriculum design is represented on the next page.

CURRICULUM

ENTRY: ± 450 TOEFL

GRADUATES:	GELC 300 stds/yr			GSELC 200 stds/yr			BELC 200 stds/yr		
LEVEL A (300 hrs/10 wks)	GE	EAP-EST	C	GE	EAP-EST	C	GE	EOP-EBE	C
LEVEL B (300 hrs/10 wks)	GE	EAP-EST	C	GE	EAP-EST	C	GE	EBE-EOP	C
LEVEL C (300 hrs/10 wks)	GE	EAP-EST	C	GE	EAP-EST	C	GE	EOP-EBE	C

EXIT: ± 550 TOEFL and EAP/ESP Proficiency

GE - General English
EAP - English for Academic Purposes
EST - English for Science and Technology
EOP - English for Occupational Purposes
EBE - English for Business and Economics
C - Cross-Cultural Orientation

An essential element of the UCLA-China Exchange Program is research and development of ESP. Areas presently being investigated by the center are:

1) (Initial) needs assessment, linguistic and socio-cultural
2) Exit criteria specification (functioning in an English medium academic environment)
3) Simulation of English academic experience in the PRC (e.g. the adjunct concept)
4) Syllabus development (Chinese and American teams at UCLA and in the PRC)
5) Materials adoption, adaptation and development
6) Program implementation
7) Needs redefined—on-line linguistic and socio-cultural assessment
8) Curriculum evaluation and refinement
9) Performance testing.

The goals for the UCLA-China Exchange Program-TESL include:

1) Highly proficient Chinese speakers of English (approximately 700 per year - c.f. above chart)
2) Highly qualified Chinese teachers/researchers in English for Specific Purposes
3) Curricula in ESP (including socio-cultural orientation) which may serve as models for similar programs elsewhere
4) Materials (books, films, tapes, tests) specifically prepared and developed for Chinese scholars
5) Valuable research findings regarding language, language use, and language evaluation as well as research concerning cross-cultural interaction.

For further information concerning the UCLA-China Exchange Program in TESL, please contact:

Dr. Russell N. Campbell
ESL Coordinator
UCLA-China Exchange Program
1201 Campbell Hall
Los Angeles
California 90024

GUANGZHOU ENGLISH LANGUAGE CENTER

An ESP Program for Prospective Science Scholars in English-speaking Countries

By Yang Xiuzhen, Director, GELC
Guangzhou English Language Center

As part of the modernization program, China has decided to send a considerable number of scholars to study abroad in order to learn recent developments in science and technology from other countries. Various centers have been established to provide scholars bound for different countries, mostly English-speaking countries, with instruction that will enable them to communicate adequately, both in speech and in writing, with their colleagues in their particular fields of work or study. The Guangzhou English Language Center (GELC) was inaugurated in September, 1980, under the auspices of the Ministry of Education of China as a joint project of Zhongshan University and UCLA. It is an ESP program, teaching EST, English for Science and Technology, and later in the program, EAP, English for Academic Purposes, with some ESL in between. As R. Mackay puts it, "By ESP is meant the teaching of English not as an end in itself but as an essential means to a clearly identifiable goal" (1978). In our case, the goal is "clearly identifiable": communicative competence in specific subject areas.

Students at GELC are selected and admitted on the basis of nationwide examinations given by the Chinese Ministry of Education. The scholars, recommended by their own institutions for outstanding work in research or teaching, include scientists, professors and researchers in various fields of science and technology. The maximum number of students studying at GELC every session is 225, divided into three English language proficiency levels, each level consisting of 10 weeks or 300 hours of intensive instruction. Students are admitted if their entrance score is an approximate equivalent to

460 on the TOEFL, on exit they are entitled to a GELC certificate if their language proficiency suggests that they can pass the English language tests administered by English-speaking countries for foreign students.

The students are generally aged 30-45 and over. As people of this age group in China received their education during a time when English was not taught as a major foreign language in schools or colleges, some of them have studied Russian, German or Japanese, and have taken up the study of English on their own only in the past few years. Others, though they have received some formal English instruction, learned the language in the traditional way, through translation and grammar analysis. These people are thus strong in structure, but few of them have ever had much exposure to spoken English, especially by native speakers, even on the radio. As to writing skills, scarcely any of them have received the training that they need to successfully complete their education abroad. These are the handicaps, yet there are factors which tilt the balance in their favor. Conscious of the fact that their ability to use and understand the language is minimal, they are highly motivated to learn it well. Moreover, they are intellectually and emotionally mature and are capable of doing independent work. Christopher Candlin et al say, "... in teaching EST... one is involving specialist learners in performing in the target language those mental processes and intellectual operations already familiar to them from their 'doing science' in their mother tongue" (1975). In the case of the GELC scholars, their familiarity with the non-verbal modes of scientific discourse, such as tables, charts, graphs, diagrams and formulas, forms another favorable factor that can be exploited to facilitate language learning.

To get an idea of how GELC scholars could be prepared for their work and study in English-speaking countries, investigations in the form of questionnaires and interviews were conducted among overseas Chinese students of science and technology at UCLA regarding the skills they thought the prospective scholars would need. Suggestions were also sought from some American professors who had Chinese scholars working under their guidance. A study of the views of these two groups of people showed some discrepancies, the former stressing the importance of listening and speaking; the latter reading and writing. However, in spite of these divergent views, the needs surveys served as the basis for drawing up a workable plan, which of course is subject to modifications when more substantial information is collected.

With the needs of the students ascertained, a rationale for material selection had to be worked out. To achieve our goal of teaching communicative competence, it was impossible, we believed, to follow the well-established tradition as typified by Ewer and Lattorre's Basic Scientific English, which took as its basis the analysis of the lexical and syntactic features of the texts common to various fields of science and technology. Materials like these do not seem to provide for student needs "which have to do with an understanding of the communicative functioning of the language" (R. Mackay and A.J. Mountford, 1978). And yet this understanding of the communicative functioning of the language is what our scholars lack. Widdowson points out that "... the difficulties which the students encounter arise not so much from a defective knowledge of the system of English, but from an unfamiliarity with English use, and that consequently their needs cannot be met by a course which simply provides further practice in the composition of sentences, but only by one which develops a knowledge of how sentences are used in the performance of different communicative acts" (1974). Materials into which acts of communication are incorporated, showing the reasoning processes associated with defining, classifying, generalizing from observation, drawing conclusions and so on, seem to be more appropriate for our purpose. We have thus chosen materials which we think are the best available in the present circumstances and we hope what is taught "will be used grist to the mental mill", in the words of Widdowson, and will help develop the students' capacity to learn during and after the course.

There are nine American and six Chinese teachers presently involved in the program. Most of them are ESL/EFL practitioners and people with such a background "may feel they have no special apptitude for or even interest in the areas of study which occupy their students" (R. Mackay and A.J. Mountford, 1979). How then are these teachers going to cope with the task which seems to demand of them, if not an efficient knowledge, at least an elementary knowledge of science and technology? Widdowson says, "The teacher of EST is not generally called upon to teach the English discourse of science as a discipline, but the English discourse of science as a subject as this has been designed by the methodologists of science." (1975). Facing such a heterogeneous population of scholars as ours, the teacher cannot aspire to be a specialist in the subject of any of the learners. His task, according to Strevens, is to teach "the rhetorical, discoursal, and communicative features of scientific English" (1979). "The teacher should bend himself to helping such learners express the purposes and roles of being a scientist, rather than addressing himself to the apparently obvious, yet ultimately trivial task of teaching scientific terminology, much of which turns out to be already known or easily guessable" (Strevens, 1979).

GELC is now in its fourth ten-week session. Three groups of scholars have graduated. Their exit scores indicate that improvements have been made in different skills. Judging by the fact that they had had little practice in speaking and writing before they came to GELC, the achievements they made in these two fields, though not striking, are substantial and encouraging. In reading and listening, however, results are not as good as expected in proportion to the amount of practice involved. It is hoped that research will be conducted in these areas that will result in more effective teaching and learning in the future.

On the whole, GELC has been running a successful program, though improvements can and will be made. Had it not been for time and manpower constraints, teaching materials more suitable to the needs of the Chinese scholars could have been prepared, students' motivation could have been better satisfied and better results would have been secured. And there are other problems awaiting solution, such as an adequate analysis of learners' needs, better coordination of different skills, better adjustment of teaching and learning, the development of an appropriate set of criterion-referenced tests, etc. These are arduous and intricate problems to solve, yet they are challenging problems too, and any move towards their solution would mean a contribution to the spread of English in a country that is anxious to see its scientists and technologists master this tool in its work of modernization.

II. MATERIAL DEVELOPMENT

The Integration of Advanced Reading and Writing in an ESP Context *

Randy L. Stice

*This course was developed at UCLA during the summer of 1980 by James Griswold, Kristen Linden-Martin, Celeste Scholz and Randy Stice.

Recent literature has suggested an integration (Widdowson 1978) or interface (Dubin and Olshtain 1980) of reading and writing. This integration is particularly rich when it utilizes authentic texts, for they serve both, "as a repository of natural language use and...as the stimulus for a variety of communication skills" (Phillips and Shettlesworth 1978:25-26). As such, they can provide the learner with valuable insights into how native speakers manipulate elements of the target language and they can serve to draw in the learner's specialized knowledge.

In considering a framework for integrating reading and writing, one can profitably look to the tripartite model advanced by Dubin and Olshtain. Part One of the model treats rhetoric, which, as Dubin and Olshtain define it, "is concerned with what goes into writing...established cultural norms for standards of good writing." The second part refers to textual discourse analysis which, pedagogically in ESP, has had comprehension as its goal. And Part Three treats psycholinguistic research into effective reading strategies (Dubin and Olshtain 1980:354-355). Only Parts One and Two are relevant to this discussion. Several writers have identified generalizable rhetorical functions within an ESP context, such as definition, classification and listing, physical and process description, cause and effect, and comparison and contrast (See Widdowson 1978; Eisenberg 1978; Jordan and Matthews 1979). These rhetorical functions have formed the basis for integrating reading and writing.

For the initial unit, eleven passages ranging in length from 400-750 words were selected from several different science journals, including Scientific American (4 passages) and Science (5 passages). The criteria for selecting these passages conform to those put forward by Phillips and Shettlesworth: "(a) the relevance of the subject matter and (b) the importance of the language points exemplified and their frequency of occurrence" (1978:20). For GELC, the first criterion was the more complex of the two. Because the students represented a broad cross-section of the sciences, articles drawing on several disciplines were selected. Topics ranged from physiology to aquaculture, astronomy and acupuncture. As to the second criterion, the language points sought were the above-mentioned rhetorical functions. For the initial unit the second criterion was given greater weight than the first.

It is often the case that rhetorical functions are presented individually, one rhetorical function per unit. If, however, one looks at an authentic text, "a stretch of real language, produced by a real speaker or writer for a real audience and designed to convey a real message of some sort" (Morrow 1977:13) as an example of how native speakers manipulate these rhetorical functions, one finds them both in isolation and in various combinations. For this reason, articles and passages were chosen both to acquaint the students with how a native speaker uses rhetorical functions in isolation and in various combinations to produce discourse, and to show the students how the different rhetorical functions are handled by native speakers in authentic texts. Frequently when the rhetorical functions are first taught, a list of signal words or markers is given. A definition, for example, may be introduced by "is defined as", "means", or other similar expressions. In many cases, however, these markers are absent from the text. Since both types occur in authentic texts, students should be familiar with both types.

Thus, the reading objective combined Parts One and Two of Dubin and Olshtain's model, textual discourse analysis for comprehension, and identification of rhetorical functions and their attendant markers if present. Following the analysis of the passage, students were asked to use the passage as a model for writing a short composition (100-250 words) employing the same rhetorical functions found in the example on a topic of their choice. The assignments were graded according to the number of different rhetorical functions found in the passage:

Assignment #1 - definition, physical description
" #2 - listing, physical description
" #3 - definition, physical description, classification
" #4 - cause and effect
" #5 - definition, cause and effect, listing, physical description
" #6 - contrast
" #7 - comparison
" #8 - process description
" #9 - classification, cause and effect, process description, physical description, definition

Following the completion of this unit, reading and writing interface from a different direction. Several articles on different aspects of a subject were chosen. In choosing the articles the following criteria were used:

1. The articles should draw in several of the following disciplines: physics, chemistry, biology, engineering, medicine, and computer science.

2. The articles should represent that type of scientific discourse which Widdowson has termed "science as a discipline. This is scientist to scientist communication such as is found in papers published in learned journals. It characteristically trades heavily on an assumption of shared knowledge, not only of the subject matter under discussion but of the rhetorical conventions which control the way it is expressed" (Widdowson 1979:167). In the first unit of Part Two, however, articles were also chosen which represent "the discourse of science as a topic of interest" (Widdowson 1979:168).

After the articles have been read and discussed in the reading class, they are used in two different ways in the writing class. First, students are asked to write a 50-minute in-class essay, based on the articles read in the reading class. For example, after reading the following seven articles (500-2000 words each) on lasers (with the relevant discipline indicated in parentheses) - "Space vehicles could be propelled by remote lasers" (engineering); "Laser vaporization of inner-ear bone has restored hearing in 20 patients" (medicine); "Lasers drill holes in drug capsules for controlled release of medication" (engineering); "New tool to monitor sulfuric acid emissions"(chemistry); "Toward laser weapons in space" (engineering); "UK out of joint in laser welding" (engineering); "Human inspectors are being replaced by laser scanners at 4 textile mills" (computer science) - students were given the following topic for an in-class essay:

> The articles give some indication of the great variety of uses to which lasers have been put as well as possible future applications. Discuss and give examples of those characteristics of the laser which make such varied applications possible.

The reading selections are then used as the basis for a more extended essay (500 words) in which the students may also draw upon their own specialties. To continue with the unit on lasers, students were asked to write on one of the following topics:

1. Discuss possible future applications, developments and problems in laser technology.
2. Discuss possible applications of laser technology to your field of specialization.

The overall strategy for the advanced reading and writing courses has been to integrate the two skills at three different levels. First, the student writes a passage modelled after a passage read. Second, the student writes a timed essay based on several articles previously read in the reading class. And finally, the student writes a longer essay based on the same articles, but with the option of relating it to a professional specialty. In this way the student is able to learn "techniques of reading by writing and techniques of writing by reading" (Widdowson 1978:144).

MATERIALS DEVELOPMENT: ADVANCED SPEAKING*

Ann Hilferty

*The following members of the UCLA-China Exchange Program contributed to the materials survey and/or the subsequent materials development: Susan Bitterman, James D. Brown, Chen Yongpei, Susan English, Ann Hilferty, Debra Jonas, Janey Kayfetz, Li Xiaolong, Candace Mocko, George Scholz, Margaret van Naerssen, and Wang Yinglong

A search for materials appropriate for the advanced speaking course in the UCLA-China Exchange Program turned up unexpected results during the Summer Planning Session, 1980. An initial survey of ESP texts had failed to identify materials which met the program criteria of: (1) situational and topical appropriateness, (2) relevant language content, (3) congruence with the academic and professional goals of prospective students, and (4) pedagogical effectiveness, i.e., for developing target speaking skills. (Adapted from Strevens 1979).

Even texts of consistently high calibre seemed to lack either sufficient theoretical breadth or appropriateness of content for the wide range of academic specializations represented in the China program. When the scope of the materials survey was broadened to include video cassettes produced commercially and by university departments for other than language teaching purposes, a number of promising materials were identified.

Chief among these were the Medicine and Society Forum Video Cassettes (MSFVC's), a taped series of monthly meetings sponsored by the UCLA School of Medicine in which current legal and ethical issues are discussed. In contrast to the ESP texts, the MSFVC's were interdisciplinary, encompassed the spectrum of the physical sciences, and suggested ideas for the development of an integrated set of materials of high quality. Videotapes for four of the Forums were purchased and have since been made part of the advanced speaking course at the Guangzhou English Language Center (GELC). These include: "DNA Research and the Law: Cooperation or Collision?" (appropriate for Biology and Medicine), "Energy Needs, Resources and Health Risks," (appropriate for Engineering and Medicine), "Environmental Carcinogens: the Ethics and Economics of Responsibility," (appropriate for Chemistry and Medicine), and "the Nuclear Power Plant: Threat or Promise?" (appropriate for Physics, Engineering and Medicine.)

The Forums include four parts, each part illustrating an academic interaction in appropriate register: (1) an introduction in which the Moderator introduces the invited experts and University faculty who form the panel and describes their positions on the discussion topic (about 5 minutes), (2) a five-minute address by each panelist (about 20 minutes), (3) a free discussion among the panelists (about 20 minutes), and (4) a question and answer period between audience and panelists (about 15 minutes).

Each of the unrehearsed Forums is a collection of semantically organized networks offering a number of registers appropriate for complex academic settings. Although addressing specific medical and other scientific areas, the tapes are not primarily technical. Therefore, while they do not provide the highly specialized registers that might answer limited, unique needs of individual scholars, they do present model situations and registers which are appropriate and useful for most professionals in the sciences. Hence, they provide a valuable resource for the Speaking teacher who is constrained by logistical considerations from supplying different materials for each student's major. Indeed, the MSFVCs' very breadth suggests a partial solution to the problem of diversity among GELC students' specializations: students themselves may respond to issues discussed in the MSFVC's, supplying technical information from their respective fields, and offering their professional and personal judgments on the issues discussed. In addition, as conflicting viewpoints are often expressed and handled with subtlety in the Forums, the tapes lend themselves to social, as well as to academic purposes. Some of the content differs only in small degrees of formality from discussions on the same subjects one might encounter in the faculty lounge, the seminar room or the cocktail party.

Although the four 60-minute tapes provide a limited corpus, their genuineness and completeness recommend them for initial studies which may later be tested in more extensive and rigorous research (Chambers 1980:29). And, indeed, the MSFVC's show promise not only as a source of data for beginning to test and refine hypotheses about discourse and interaction strategies in selected academic situations, but also for ideas and actual input for course materials.

Analysis of the language in the tapes has revealed numerous examples of prefaces to certain functions. It had been hypothesized that these functions would be used frequently in some of the formal group interactions which information surveys have suggested are problematical for Chinese scholars in English-speaking countries. The examples include prefaces to: signalling interruptions, introducing, turn-taking and appointing turn-taking, changing the subject, providing information, providing opinion or conclusion, providing clarification, providing expansion, seeking information, seeking clarification, seeking expansion, acknowledging understanding, agreeing, disagreeing, correcting, faltering, digressing, and ending a turn. This analysis has provided partial confirmation of the validity of a major objective for Speaking at the advanced level, i.e., precision in the use of selected discourse markers as an important part of the acquisition of proficiency for large and small group academic interactions specific to post graduate situations in the U.S. (UCLA-Zhongshan 1980).

The MSFVC's have also contributed material for the study of the dynamics of turn-taking in American academic situations, especially during the discussion and question-and-answer periods. Analysis of these sections has shown a number of linguistic and paralinguistic signals and strategies used for (1) allocating and taking turns, (2) dealing with gaps and overlaps in transitions between speakers, (3) influencing the subsequent speaker(s), and (4) ensuring relatedness among sequential speakers' utterances. (Phillips 1974:3-11). Both analyses have suggested ideas for classroom use, many of which have already been implemented and are currently in use in the program.

Selecting the MSFVC's as a source of classroom materials has necessitated a serious commitment to materials development. Efforts at developing the materials have included: (1) analyzing the tapes for linguistic elements, (2) transcribing tapescripts, (3) tabulating selected linguistic elements, (4) reproducing the sections of each Forum on audio and video tapes, (5) writing prose summaries of the sections, (6) listing prefaces for specific functions, (7) preparing comprehension activities, (8) designing language analysis activities, and (9) planning activities in discourse and interaction analysis.

Presently, approximately four-fifths of the advanced Speaking course time is devoted to language development activities and academic simulations designed to give general language practice and to foster experience-based language expectations (Smith 1975:1). Of particular relevance among the language development activities are structured small group activities encouraging practice in the use of conventionalized language forms appropriate for functions in academic settings (Yorio 1980: 433-442). Experiential parallels to sections of the MSDVC's are offered by the simulated academic situations, sometimes videotaped, in which students participate as presenters and responding group members. The development of these skills and expectations provides apt preparation for introduction to the MSDVC's during the latter part of the course, and in turn, viewing the MSFVC's consolidates and furthers the skills and expectations.

Since the content of the MSFVC's is more complex and demanding than that of either the speaking activities or the ESP texts used at GELC, a number of steps are taken to prevent student frustration in their first exposure to the tapes. (1) Before viewing the Forums, students read and discuss overviews provided by the MSF for descriptive purposes, and (2) read and discuss outlines of each section of each Forum. (3) They review general comprehension questions before viewing the tapes one part at a time, take notes while viewing, and discuss answers to the questions afterwards.

Following the first viewing, students do both analytic and synthesizing exercises, first identifying and predicting specific functions, prefaces and connectors. They then view the tapes again, one section at a time, and engage in teacher-guided discussion focussed on discourse and interaction analysis. Observations made during the discussions are checked immediately by replaying appropriate sections of the tapes. Finally, students participate in seminars modelled after the design of the MSFVC's. Both the complete 60 minute tapes and the individual sections are available in audio and video tapes for additional use by students at their request.

Plans are underway to use the MSFVC's in both Listening and Speaking courses, making the introductory and the comprehension exercises part of the advanced Listening course, and concentrating in the Speaking course on further exploiting the activities in discourse and interaction analysis and practice. Staff are presently exploring more direct techniques for introducing the video tapes such as: small group discussions, debates, case histories, role plays, and video-taped simulations of intermediate difficulty prepared by GELC staff members.

The selection of the MSFVC's is paying dividends, providing solutions to some of the teaching problems of advanced Speaking, as well as suggesting materials for further analysis of language and interaction. We hope to conduct further studies in which the value of the MSFVC's at GELC is confirmed and elaborated on.[1]

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[1] The UCLA Program in Medicine, Law and Human Values coordinates four endeavors: The Medicine and Society Forum (and Videotapes), undergraduate courses, professional school and graduate courses, and conferences. For information regarding the UCLA Medicine and Society Forum Videotapes, write to: UCLA Instructional Media Library, Royce Hall Room 8, 405 Hilgard Avenue, Los Angeles, California 90024, USA.

MATERIALS APPLICATION OF LECTURE SERIES: TWO APPROACHES*

Debra Jonas

The UCLA-China Exchange Project created a modified university course entitled "The Introduction to the Philosophy of Science" to be used in level C at the centers in both Guangzhou and Beijing. Core materials consist of 11 articles and nine corresponding video-taped lectures designed for a freshman introductory course at UCLA. The series represents an attempt to closely simulate in China the elements of a university course taught in the United States.

Although nearly all students at the centers are in the fields of science and technology, few have similar specilizations. Consequently, they have little in common in terms of technical subject matter. The philosophy of science acts as a common thread applicable throughout a heterogeneous group. In discussing the fundamental principles of an EST program Widdowson states:

> We can define scientific discourse then, as the verbal and non-verbal realization of the communicative system of science. Now this system has been described under the name of the philosophy of science, and any systematic description of scientific discourse in English must therefore take account of this philosophy, which represents the basic principles of scientific inquiry. (1979:42-3).

A formalized introduction to the philosophy of science offers a topic common to diverse specializations. However, Widdowson warns against materials that are thematically scientific, but rhetorically inappropriate (p. 168). Whether materials based on the philosophy of science are stylistically the most effective in demonstrating the rhetorical functions of science raises controversy and deserves further investigation. However the mode of presentation, i.e., lectures and articles, does convey academic functions of discourse which are essential in university preparatory programs. The advantages of a meaningful, unified context for language skills application in an EFL setting are self-evident. Moreover, the articles and lectures provided by native speakers (non-ESL teachers) contribute to an effective approximation of an academic setting unlike the artificially contrived activities which result in most EFL situations. The following two approaches illustrate how the philosophy of science materials are applied to instruct and elicit language skills appropriate for an academic setting.

Beijing: The Modified Adjunct Concept

At the University of Science and Technology in Beijing, the materials for the philosophy of science series are synthesized to form a separate course that focuses on content rather than on language skills. The resulting component, "The Introduction to the Philosophy of Science," imitates the format of a university course, but offers guidelines for the application of language skills. The rationale underlying level C curriculum reflects the ESP adjunct concept described by Bernbrock (1980). A freshman introductory psychology instructor and Bernbrock, the ESL teacher, coordinated their syllabi at UCLA so that the language skills taught in the ESP adjunct would complement the academic course. Thus, note-taking, outlining, paraphrasing, etc. were formally taught in the adjunct course, but applied simultaneously in the academic course. From an ESL perspective, the adjunct course serves the dual purpose of introducing language skills formally, while offering an immediate meaningful context for reinforcement. In our level C curriculum in China, skill areas are maintained for the presentation and extensive practice of a wide variety of language skills, while the philosophy of science component acts as a content course for the application of language skills and the understanding of the philosophy of science.

Not teaching skills directly but providing communicative skill support balances the philosophy of science component between a formal skill area and a native speaker content course. Although the terminal objectives of the program are concerned with communication in an English speaking academic setting, beginning level C students are not yet linguistically competent enough to deal with a university course aimed at native speakers. Rather than abridge the philosophy of science series for foreign students, we supplemented the materials with language "props". These included outside use of the articles and taped lectures, additional guidance in the form of guided notetaking outlines, comprehension and summary exercises, and both listening and reading exercises developed from the lectures and articles, respectively. Throughout classroom activities, the language teacher offers suggestions and feedback concerning appropriate use of skills when applicable. Thus s/he must be familiar with not only the skills taught in the other components, but with the order in which they are taught, so s/he does not require an activity that has not been presented and practiced previously. The instructor must be sensitive to student language skill needs as well as to fundamental principles of science.

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*See next article for second approach.

Since the lecturers and the author of the articles are not available, the language teacher must act as a "teaching assistant", supervising class discussion and activities. Although the language teacher must have an adequate understanding of the materials, s/he need not formally teach the content course, since the foundation is already available in the form of videotapes and written articles. Generally, course objectives are concerned with developing a conscious understanding and questioning of the fundamental principles that underlie the scientific pursuit of knowledge; successful attainment of these objectives is based on content in the form of essays and participation in seminar discussions. The instructor's role involves chiefly "management activities" as described by Allwright (1979). Basically, for the philosophy of science component, this student-directed orientation is realized through: (1) Presentation: notetaking, asking factual questions, responding to colleagues' questions, listening/reading for specific facts in response to questions proposed; (2) Seminar Discussion: supporting statements by referring to lecture/article, giving examples to explain statements, proposing controversial issues, responding to differing viewpoints; (3) Summary: clarifying differing viewpoints, distinguishing (il)logical conclusions, judging opinions and inference. By focusing on content, depth of material is exploited. To synthesize and apply various skills in a content course provides an additional step toward bridging the gap between language instruction and academic pursuit.

A course which is unified and relevant to student needs, and which maintains student interest is a seldom achieved goal in an EST/EFL intensive program curriculum. The modified adjunct concept provides a possible alternative for the fulfillment of these objectives. Skills are presented and developed formally in separate skill areas, while the content component applies these language skills to explore the philosophy of science. The modified adjunct concept demonstrated in our level C curriculum could be a useful model for EST academic preparatory programs in foreign countries.

LISTENING TO ACADEMIC LECTURES: MATERIALS DEVELOPMENT

Susan Lewis English

The academic lecture presents the non-native listener with a challenge to the skills of perception, comprehension, and memory. The materials for a course in listening to academic lectures should prepare listeners to meet this challenge by providing instruction and practice in listening strategies appropriate to the academic setting. This is the aim of Listening to Academic Lectures as the materials developed for the academic listening curriculum at the Guangzhou English Language Center.

Selection of Materials

A series of five videotaped lectures in the philosophy of science was developed, based on the proposition that "the rhetorical conventions of science derive from the methodology of science" (Widdowson 1976:268). Authentic materials were selected to enable the listener to "bridge the gap between classroom knowledge and an effective capacity to participate in real language events" (Wilkins 1976:79). The lectures are presented in unedited and unsimplified form to preserve all the asides, hesitations, and repairs of an actual academic lecture. Videotape was chosen over audiotape because of the inadequacy of audio recordings in preserving the visual aspect of communication (Candlin 1976:39).

Rationale for Exercises

The role of chunking and recoding in memory was described in the 1950's by Miller. The brain can be said to group bits of information into chunks, of which seven seems to be the "magical number" which can be processed by our memory span (Miller 1956:92).

> *Since the memory span is a fixed number of chunks, we can increase the number of bits of information that it contains by simply building larger and larger chunks, each chunk containing more information than before (Miller 1956:93).*

The recoding of chunks in turn increases memory span. "There are many ways to do this recoding, but probably the simplest is to group the input events, apply a new name to the group, and then remember the new name rather than the original input events" (Miller 1956:93). He labels the process of recoding "an extremely powerful weapon for increasing the amount of information that we can deal with" (p. 95). Recoding can take several forms, the customary being translation into a verbal code (p. 95).

More recently Oller compared chunking with de Saussure's distinction between the paradigmatic and syntagmatic dimensions of language. Though language comes to us in a temporal sequence (the syntagmatic dimension), the mind organizes it into a spatial arrangement (the paradigmatic), which can be called chunks (Oller 1974:445). Oller carries the notion further by connecting chunking to the concept of expectancy. The more predictable a sequence of elements, the more readily it can be processed (Oller 1974:447).

For Listening to Academic Lectures, the concepts of chunking, recoding, and predicting were further combined with notional categories (Wilkins 1976:85-88) to provide a novel rationale for listening exercises. Notional categories are introduced as a way of organizing the lecture into chunks for processing, and specific functions are named as a mnemonic for recoding and storage. Listeners are trained to break the lecture into first large and then smaller notional units. A definition, for example, might be separated into description, example, and summary. In the first two lectures, listeners learn to identify and name notional categories and then in the following three lectures to predict the notional category of the passage they will hear next.

To enable listeners to identify and predict notional categories, exercises focus on specific signals or cues to notions. These cues include both verbal and non-verbal cues. Primary attention is given to the identification and prediction of conjunctive elements (Halliday and Hasan 1976:242-243).

Grading and Presentation of Exercises

A brief dictation drawn from the opening lines of each lecture provides an introducton to stimulate listener expectations. Then the videotape is shown one time without interruption. Immediately following the viewing of the videotape, a pretest with a true-false format is administered to measure comprehension of the content of the lecture. Notetaking is encouraged by allowing listeners to refer to their notes while taking the pretest. This begins an eight-day unit for each of the five lectures, each unit concluding with a final showing of the videotape and a posttest similar in format and content to the pretest. Although the tests provide a means for teacher to monitor and for students to self-monitor learner progress both within and between lectures.

For instruction and practice, the lecture is divided into three parts and each part is presented three times. The first time the focus of the exercise is on notional categories, the second time on conjunctive elements, and the third time on context clues to vocabulary items.

The concept of chaining was developed at GELC in an effort to break the lecture into short passages while preserving the continuity of the lecture as a whole. During a given exercise, the listener hears a repetition of that passage followed directly by the next passage. The continuation of each passage into the next one results in a sort of chain throughout the exercise.

Although the five lectures themselves are ungraded, the exercises are carefully graded in terms of learner objectives. Learners are required to perform tasks first of perception and discrimination, next of identification and description, and finally of production.

Additional paralinguistic exercises are provided to train students to become observers of paralanguage. This includes suprasegmentals (stress, intonation, and rate) and non-verbal behavior (gesture, facial expression, eye gaze, and body movement). The purpose of the paralinguistic exercises is to increase the redundancy of the lecture by increasing the number of cues to which the listener has access.

Summary and Evaluation

Present satisfaction with the materials for Listening to Academic Lectures is tempered by a number of issues which deserve further consideration. These include the appropriacy of lectures in the philosophy of science as the basic text for an EAP listening curriculum; the feasibility of teaching notional categories without turning the student into a mini-linguist; and the generalizability of either linguistic or paralinguistic cues from one speaker to another.

A further reservation concerns the practicability of an approach which emphasizes process over product. These materials emphasize the learning of strategies which can later be applied to authentic listening situations in the target culture. Yet the learners at GELC constitute a select group of learners who have throughout their lives been highly successful at focusing on the product rather than the process. The word-by-word breakdown and analysis of listening texts in traditional Chinese foreign language classes bears witness to this approach. The tendency among learners to resort to rote memorizations, transscription of the spoken text, and other techniques aimed at "getting the right answer" may undermine the aim of the materials, which is teaching students the process of learning how to listen.

Listening to Academic Lectures combines theoretical bases with practical possibilities in an attempt to prepare non-native listeners for the academic challenges which await them in the target culture. It is hoped that measurable results will soon affirm present intuitions that these materials can help Chinese scholars to better understand academic lectures in foreign universities.

CROSSCULTURAL ORIENTATION IN AN ESP PROGRAM

Brian K. Lynch

The extreme interrelatedness of language and culture has been written about extensively in the fields of anthropology and linguistics. As our idea of communication has expanded to include extralinguistic, or nonverbal, competence and behavior, the importance of culture in second language training becomes all the more obvious. Crosscultural differences in such communicative behavior can have extremely inhibiting effects on successful communication. Nostrand (1966) and Brooks (1968) argue for the importance of including a culture component in foreign language instruction programs. Bhukkarat (1974) makes a proposal for teaching culture in the EFL context, and Black (1978) proposes crosscultural orientation be included as a part of ESL teacher training programs.

The current literature on English for Specific Purposes (ESP) and communicative syllabus design also stresses the importance of crosscultural orientation. Munby (1978:23) lists as the first point in his theoretical framework: "sociocultural orientation". In outlining his model, the Communication Needs Processor (CNP), he includes the parameters of: "purposive domain", which is described as a "higher order sociocultural constraint"; "setting", which includes the "psychosocial" such as environments that are "culturally different"; and "interaction", which includes "social relationships" (1978:35-36). This, then, amounts to a specification of the interrelationship of language, communication, and culture. Strevens (1979:10-11) discusses the importance of the terms notional, functional, and communicative in relation to ESP. After acknowledging the association of notions with the work of Wilkins, he describes the term as important concepts "about the universe" which the language learner needs to know. It seems clear that notions such as time or space are extremely culture bound. All of this would indicate the importance of including an examination of crosscultural differences as a part of an ESP syllabus.

In addition to the importance of crosscultural orientation in terms of improving the learner's ability to communicate in the target language, there is the related issue of culture shock. Oberg (1960) is generally credited with introducing the term in an earlier article, to describe the process of intercultural adjustment. Hall (1959) describes culture shock as the loss of one's cues to social interaction, such things as customs, gestures, facial expressions, or when to shake hands, take statements seriously, etc. The disorientation experienced by the individual can cause extremely negative feelings about the new culture and its people, can cause the individual to feel incompetent, or result in feelings that one is constantly being taken advantage of, excessive concern with cleanliness, and a general sense of hopelessness and anxiety. Research done with Peace Corps Volunteers indicates that the effects of culture shock can result in diminished efficiency in one's work, a lessened sense of self worth, or premature return from one's assignment (Dicken 1969; Fisher et al. 1967; Mischel 1965; Smith et al. 1963; Thomson & English 1964). While no definitive research has been done on the ability of crosscultural orientation to diminish the effects of culture shock, Hall and Whyte (1963) offer a convincing argument that such an experience can enable the individual to become more aware of the social cues in a foreign culture, and then modify behavior to minimize the period of disorientation.

As a result of identifying crosscultural orientation as a important element for any ESP based language training program, the UCLA-China Exchange Program began to develop a culture component during the spring and summer of 1980. The first step in this development was a research survey conducted by two American and three Chinese ESL/EFL teachers. To begin with, discussion sessions between the research team and scholars from the People's Republic of China were held to identify important crosscultural topics. This led to the development of a 67 item questionnaire, translated into Chinese via the double back method, and mailed out to the 33 scholars from the People's Republic of China currently studying at UCLA. The research team had spoken with 18 of these scholars during the group discussion sessions, and 25 completed questionnaires were received. All but one of the consultants were from the fields of science and technology and thus, were representative of the type of student that would be at the Guangzhou English Language Center (GELC) and the Graduate School English Language Center (GSELC) in Beijing. The research team hoped to gain an assessment of such students' crosscultural orientaton needs as a result of examinining their questionnaire responses. A modified, nine point, Likert scale was used and the consultants were asked to evaluate each of the 67 items in terms of its importance for preparing future Chinese scholars for a sojurn in the United States.

The results of this questionnaire showed a preoccupation with items that were later categorized as off campus survival and on campus survival, where survival, in both cases, means essential for success. This concern for the practical side of culture was built into the culture component design by devoting the 45 hours per ten week term at Level C to those types of topics, e.g., how to find housing, how to use the transportation system, etc. After consulting with Carol Salzman, intercultural communication expert and Director of the Office for International Students at UCLA, it was decided that a value orientations approach be included as the base for the component. Basically, the value orientations approach is designed to enable a person to analyze communication on a general and abstract level, that is, to become aware of how the values of one culture influence the perceptions and behaviors which govern communication in that culture. Without such basic, notional aspects of cultural knowledge, the practical aspects that the questionnaire consultants were concerned with would only be superficially understood.

The following is the syllabus outline developed for the crosscultural orientation component to be used at all three language training centers of the UCLA-China Excange Program.*

Level A: The theme is Seeing/Perceiving. The students are presented with introductory information on the target culture, the United States. (15 hrs. per 10 wk. term)

Introduction. (2 hrs.) Language and culture, Intercultural adjustment and culture shock.

Unit 1. School (5 hrs.)

a. The physical setting (campus layout and appearance, classrooms, other facilities)

b. Classroom dynamics (role definition, teaching styles, questioning/arguing, formality/informality)

c. Structure and organization (university level: types of graduate programs, types of classes: seminar, discussion, lecture; departmental and administrative organization)

Unite 2. The Family (4 hrs.)

a. Types of families (traditional nuclear, both parents working, single parent, extended, blended)

b. Role definition (husband/wife, parent/child, older/younger, sister/brother)

c. The home (physical setting, privacy, family activities, discipline/decision making)

Unit 3. Work (2 hrs.)

a. The workplace (types of jobs, attitudes toward work)

b. Role definition (blue collar/while collar, union/management, current labor issues)

Unit 4. Society in General (1 hr.)

a. Public interaction (the street, public parks, the marketplace, organizations/clubs)

b. Conflict/resolutions (the courts, police, neighborhood organizations)

Conclusion (1 hr.)

Level B: The theme is Understanding. The students are presented with more information and more complex topics concerning the target culture. They discover and analyze differences between the target culture and their native culture, developing more abstract concepts from the basic value orientations presented in Level A. (30 hrs. per 10 wk. term)

Introduction. (5 hrs.) Review of Level A.

Unit 1. Friendship (4 hrs.)

a. Define common expectations, expressions, etc.

b. Friends vs. family

c. Friends at work

d. Friends at school

e. Friends in public

Unit 2. Motivation and achievement (4 hrs.)

a. In the family (advice/guidance from parents to children, sibling rivalry, husband/wife competition)

b. At school (teachers, counselors, career guidance, coaches, grades, awards)

c. At work (supervisors, unions, incentives, status)

d. In society (what is success? TV ads, models, heroes, social mobility)

Unit 3. Work/play (4 hrs.)

a. Distinguishing between work and play

b. American sports

c. Vacations and holidays

Unit 4. Man/nature (4 hrs.)

a. Attitudes toward nature (control vs. harmony, settling the country—the Old West, space exploration)

b. Technology vs. ecology (nuclear power, the energy crisis, recycling, wilderness protection)

Unit 5. Progress and cultural change (4 hrs.)

a. In the family (family size, parental roles, divorce)

b. In schools (curriculum, teaching styles, teacher/student relationships, importance of a college education)

c. At work (strength of labor unions, automation, length of work week and day)

d. In society (women's liberation, the class system, voting and election campaigns, mass media)

Unit 6. Concepts of time and space (2 hrs.)

a. Time (as an object to spend, have, make, etc.; appointments, academic calenders)

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*The author wishes to acknowledge the work of Vicki Bergman, UCLA-China Exchange Program Senior Scholar, as well as Carol Salzman and the ideas of Condon & Yousef (1975).

b. Space (proxemics, structure of American homes)

Conclusion (3 hrs.)

Level C: The theme is Integrating/practice. The students are presented with information concerning survival skills, both academic/on campus and general/off campus, and are given opportunities to practice these skills through role plays and simulated tasks. The value orientations presented in Levels A and B should be integrated into these survival skill behaviors. (45 hrs. per 10 wk. term)

Introduction (5 hrs.) Review of Levels A and B.

Unit 1. The University
Unit 2. Housing
Unit 3. Transportation
Unit 4. The telephone
Unit 5. Banking
Unit 6. Medical help
Unit 7. Food
Unit 8. Eating Out
Unit 9. Clothing
Unit 10. Social behavior
Unit 11. Shopping strategies
Unit 12. Geography

(35 hrs.)

Conclusion (5 hrs.)

This outline, then, represents the synthesis of a needs survey and consultations with intercultural communication experts. It is designed to give Chinese scholars the basic notions of North American culture as well as functional, survival skill information. With such an orientation it is believed that their studies abroad will be more successful.

PART II, CONTAINING MATERIALS ADAPTATION, APPLICATION, AND REFERENCE SECTIONS, WILL BE PRESENTED IN JULY'S ISSUE

AN OPEN LETTER TO NEWSLETTER SUBSCRIBERS

Dear Colleague:

The ENGLISH FOR SPECIFIC PURPOSES NEWSLETTER is now two issues into its fifth year. Issue 51 is at the printer's and will be out shortly. In going over our subscription lists, we note that we have no record of receiving a subscription renewal from you. (If you have already paid, or made arrangements to do so, please disregard this notice.)

Some confusion has arisen among those who subscribed to the Newsletter in the middle or toward the end of our subscription year. Subscriptions run from April, 1981 to March, 1982. Those who subscribed in the middle or late in the subscription year receive back issues of the Newsletter. All Year 4 subscriptions expired with Issue 48 in March of this year, and Year 5 subscriptions began with Issue 49, April 1981. Year 5 subscriptions will run until Issue 60, March 1982.

We would appreciate it very much if you could look over and return the attached form. Due to ever-rising costs of printing and mailing, subscription rates have increased by U.S. $1.00. We may be forced to discontinue your subscription unless we hear from you soon, so please don't delay your response! I look forward to hearing from you and to our continued association as professionals in the field of language learning.

Sincerely,

Deborah Marino
ESP Newsletter

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FESTSCHRIFT FOR LOUIS TRIMBLE

The festschrift for Louis Trimble is now out. It is: Larry Selinker, Elaine Tarone and Victor Hanzeli (eds.) English for Academic and Technical Purposes: Studies in Honor of Louis Trimble. Rowley, Mass: Newbury house, 1981.

ESL WORKING PAPERS

The ESL Program at the University of Minnesota is planning to publish an edition of its Working Papers which will focus specifically on English for Special Purposes. The University of Minnesota ESL Working Papers No.2 (Summer 1981) will be available from the address below at a cost of $5.00.

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JULY, 1981

English For Specific Purposes

SPECIAL ISSUE
ESP IN CHINA, PART II
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III. MATERIALS ADAPTATION

TEXTBOOK ADAPTATION FOR SPEAKING IN EST

Celeste M. Scholz

English language teaching has experienced the widespread publication of many textbooks that deal with English for Specific Purposes (ESP) and more specifically English for Science and Technology (EST). A closer look reveals that the major focus of a majority of these texts is on the skills of reading and writing. The aural/oral skills of the EST student have been largely ignored, posing a problem for the program that needs to prepare students to speak and listen to technical English in both an academic and non-academic setting.

Focusing on the oral skill, the idea of presupposition tells us that people begin speaking most easily about subjects they know well. For the GELC student, who is a very mature adult indeed, these subjects are extremely varied at the individual level, but for most students they fall into two areas: the student's own field of specialization and life in China.

It was decided to begin speaking about the student's field of specialization at the beginning level and to move to the broader subjects of life in China and the world and the English needed for survival in both the US and the university academic world at the intermediate and advanced levels.

With this in mind and the obvious lack of EST textbooks that emphasize speaking, an admittedly weak skill for the GELC student, several questions can be posed:

a. What kind of textbook can be chosen that would be adaptable enough to be used to practice speaking?

b. How can the class be structured to accommodate students from different science disciplines?

c. How can the goal of communicative competence be introduced in the EST speaking class?

d. How can the class time best be used to maximize student speaking and encourage fluency?

Intent, Textbook and Format

The course intent, as outlined in the GELC curriculum, assumes grammatical accuracy and knowledge of scientific content, so that the student can develop fluency in short communicative dyads and small groups at natural speed and receive practice in the conventionalities of conversation along with certain markers (UCLA-Zhongshan 1980). Fluency is defined as "rapid, natural production and reception of contextualized, meaningful language" (Brumfit 1980:126). In order to begin meeting this intent, the core text Nucleus - General Science was chosen.* This choice, however, was not made because it most closely fit the course intent, but rather, because it provided a starting point for development as well as a title and content that were general enough to include all scientific disciplines. The authors' own decision in writing Nucleus was "to limit (themselves) to the language of observation and description - activities essential to the teaching of all branches of science and technology" (Bates 1978:87). Moreover, their use of visuals provided a basis for learner exchange of information, i.e., information transfer (Widdowson 1978:178), and not merely a mechanized response to a given notional item.

The basic format of the course follows the Nucleus outline, "to provide the learner with the means of describing the world from three viewpoints" (Bates 1978:88). The "three viewpoints", physical description (Units 1, 2, 3, A), measurement (Units 4, 7, 9, 10, C) and process description (Units 5, 6, 8, 11, B), constitute the three three-week units in the nine-week course (45 hours). It should be noted that the course treats the measurement units in sequence and subsequently the process units, instead of using the Nucleus interspersed design. This interspersed format was originally used by the authors because the continuous treatment of measurement "proved boring" (Bates 1978:88) There has been no evidence of this so far in this particular course and one can only speculate why. The motivation of the GELI student may be higher than that of the Iranian student, for whom the Nucleus material was originally written, or perhaps the course emphasis on the interaction process and the unit speaking activity help alleviate monotony.

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*The book will in the future be called Nucleus referring to the core text of General Science and not the subject specific books Nucleus Engineering, Nucleus Geology, etc.

Each three-week unit consists of two parts: activities/exercises chosen and/or adapted from Nucleus based on specific criteria and a unit speaking activity. These criteria are: a) the exercise should lend itself to short meaningful interactions to be used in group work and b) it should prepare the student directly for the unit speaking activity.

Classroom Activities

In choosing exercises from Nucleus to be used in the course the importance of viewing language as "not merely a system acquired by the foreign learner ...," but also "a system integrated with and manipulated by the learner both for himself and for others" is stressed (Brumfit 1980:108). The learners are not using language only for the sake of classroom production, but also to assert their opinions, clarify the opinions of others, demonstrate their surprise, further explain their opinions and many other purposes. To achieve this, the EST language is first introduced and practiced through selected exercises taken directly from Nucleus. Then, interactions are used which combine general language functions, usually fairly easy ones at the beginning level, with the EST language. The following interactions are examples from each unit.

Weeks 1-3 Physical Description (after pg. 21)

A. {Can you tell me what a ____ looks like?
   {I'd like to know

{B. Sure...it's...
{B. Sorry. I don't know. You'll have to ask...

A. Are you sure it's...?

B. Of course. I...

Weeks 4-6 Measurement (after pg. 59)

A. {I'm not sure how to interpret this ____.
   {Can you help me?

B. Well...let me see... (comparisons)

A. Oh, and...

B. That's right.

Weeks 7-9 Process Description (after pg. 51)

A. Can you explain how ____ works?
   I'd like to know

{B. Oh. That's easy. First...
{B. Oh. That's not so easy...let me see...

A. Sorry but what happens after...?

B. Oh...

A. Thanks.

B. That's OK.

From these few examples, it can be seen how the functions of requesting information, clarifying previously given information, showing appreciation and other functions and conventionalities are practiced while reinforcing the expressions of scientific concepts previously presented in the book and treated in class. Before each interaction is used in groups, a suitable list of objects or visuals and graphs is provided or solicited from the class so there is no lack of conversational stimulus. The interaction is also practiced with the instructor and class several times first, then for several minutes in dyads and finally in dyads in front of the class. Usually before the dyad presentations in front of the class, the interaction is erased from the board. At all times, personal creativity and imagination are encouraged.

Basically, the process can be viewed as follows:

Presentation (selected exercises from Nucleus)

Interaction (combination of general functions & EST language in dyads)

Unit Speaking Activity (use of function and EST language by individual to class)

At the end of each unit, (approximately 13 hours), the individual student is asked to present the unit speaking activity, a 3-minute talk to the class which focuses on the EST language. The talks are:

Week 3	Draw and describe an object or instrument used in your field.
Week 6	Draw and interpret a graph or chart related to your field.
Week 9	Illustrate and describe a process related to your field.

At this time the student can transfer the EST language practiced to the major field while the audience practices clarifying given information, interrupting for clarification, challenging assertions, etc. The audience is guided as to exactly how to do this before the talks in Week 3. The functions are reviewed in Week 6 and Week 9.

The unit speaking activities are first practiced in dyads to build up speaker confidence and to convince students that they can speak without reading or memorizing each word beforehand. Most students choose topics that are both simple to explain and of interest to their audiences.

Evaluation and Feedback

There are three specific times when the students receive evaluation and feedback: a) orally as the teacher moves from group to group in daily activities, b) in writing after the three unit speaking activities and c) in writing after the final speaking activity.

Since the focus is on fluency, as stated in the course intent, the teacher interrupts only when communication is impeded during the presentation and interaction phases. S/he can spend a few minutes with each group every day, simply listening, encouraging or guiding with additional suggestions as well as make general comments to the entire class on particular successes or failures (good phrases, mispronunciations, incorrect usage) after group work. It is also helpful to give students an approximate time limit for each group activity and check a watch every now and then to monitor time spent on each activity. This seems to give the students a feeling that the class is going somewhere, that the time should be lengthened if need be.

During the unit speaking activities the teacher does not interrupt the speaker at all, but rather listens and comments in writing on the good points of pronunciation, grammar, word order, vocabulary and fluency. The teacher also suggests a particular area the student should concentrate on for improvement and how s/he might practice to improve.

The final speaking activity is a five-minute talk between student and teacher. The student is presented with nine cards from which s/he must choose one without looking. The cards contain graphic information (e.g., an object, a graph, a process illustration) that would fall under one of the three units of physical description, measurement and process description. None of the visuals has been used in class but are of general science content so as not to favor one science discipline. The student is given time to examine the graphic information (less than a minute is usually sufficient) and then describes it or interprets it for the teacher. The student is evaluated in the same way as for the unit speaking activities, but is also given a global grade of very good, good or poor, based on a numerical grading scale.

This brief course outline illustrates how the beginning GELC student is on the way to developing communicative competence by the emphasis on fluency over accuracy especially at the interaction phase and during the unit speaking activity. The use of small groups whenever possible increases student talk time and allows the teacher to monitor class and student progress. The unit speaking activity helps the student to apply the EST language practiced to the science field. Finally, Nucleus has provided GELC with a starting point — a book that can be adapted to accommodate these important aspects in the development of a fluent English speaker.

NATIVE-SPEAKER SELF-ACCESS READING MATERIALS FOR CHINESE SCHOLARS: A REVIEW

Chen Yongpei and Wang Yinglong
GELC

Given the staffing at GELC, approximately fifty percent of the students' time must be spent with self-access materials of various types, i.e., working alone in our Learning Resources Center (LRC). Last summer, several learning resources centers in the Los Angeles area were visited in search of self-access materials which we could adopt. This article describes the selection of some native-speaker materials, as well as the first step in the ongoing evaluation of such LRC materials. The focus will be on the materials for the important EAP area of reading (Candlin et al. 1978).

Two Americans and four Chinese English teachers were involved in the search for LRC materials at UCLA and Santa Monica Community College. A wide variety of self-access learning materials were reviewed, including: video cassettes, audio cassettes with accompanying slide or pamphlet modules, reading machines, reading card kits, etc. We discussed these materials with the helpful staff of the two learning centers and met among ourselves to discuss, evaluate, and agree on materials for further review. For the reading skill, we had decided on native-speaker self-access kits made up of cards for increasing both speed and comprehension as the format we felt would be beneficial in China.

One American and one Chinese teacher reviewed each and every card in the reading kit. Because of the EST orientation of the GELC Program, we were particularly concerned about the percentage of materials which dealt with scientific topics, or topics somehow related to science. The two kits finally adopted (Parker 1959, 1973) contained 140 to 150 comprehension cards (a reading passage, comprehension questions and vocabulary questions), the same number of speed cards (a passage and comprehension questions to be completed in three minutes) and student record books. The cards were reportedly arranged in order of reading difficulty from easy to difficult by the author. The reading levels ranged from third to eleventh grade in one kit and from eithth to fourteenth in the other, based on native-speaker norms.

The first step in the evaluation process was to determine what proportion of the cards dealt with scientific topics. In order to do this, one American and one Chinese teacher went through all of the cards, identified those which were about scientific subjects and kept a tally including the card number and the science involved. The teachers then sat down and worked out differences in the way particular cards were labeled. The results of this analysis are reported in Tables 1 and 2.

TABLE I: SCIENTIFIC TOPICS FOR LOWER LEVEL KIT

SCIENCE	NUMBER OF CARDS	PERCENTAGE
Zoology	8	5.3
Medicine	7	4.6
Geology	4	2.6
Space technology	3	2.0
Botany	2	1.3
Ecology	2	1.3
Physics	2	1.3
Chemistry	1	.7
Total	29	19.1

TABLE II: SCIENTIFIC TOPICS FOR UPPER LEVEL KIT

SCIENCE	NUMBER OF CARDS	PERCENTAGE
Physics	6	4.3
Zoology	5	3.5
Medicine	4	2.8
Space technology	4	2.8
Modern technology	3	2.1
Astronomy	2	1.4
Engineering	2	1.4
Geology	1	.7
Meteorology	1	.7
Oceanography	1	.7
Total	29	20.4

It is clear in the tables that approximately 20 percent of the cards in both kits deal with scientific subject matter. There were, however, additional cards which we considered marginally related to science (i.e., they were not directly about science, but were somehow tangential to it): 9.3 percent in the lower-level kit and 16.4 percent in the upper-level kit. Thus, 27 percent and 37.1 percent of the cards, respectively, were on or related to scientific topics. It should be mentioned, however, that none of the cards was the type of articles directed at scientists but rather science for popular consumption. This was possibly due to the fact that the cards were aimed at junior and senior high school students.

As mentioned above, this analysis of scientific subject matter was only the first of five steps we are using to evaluate the initial decision to adopt various LRC materials. Presently, the following additional steps are being pursued:

Step 2 — Elicit student attitudes and reactions to the materials after they have used them (using a questionnaire).

Step 3 — Evaluate the author's claims for card reading levels (using the Fry 1979 readability scale).

Step 4 — Evaluate the effectiveness of the materials in terms of learning gain (using a pre-test/post-test design).

Step 5 — Investigate the reliability and validity of the placement tests provided by the author.

In summary, we made decisions to adopt some of the materials for our LRC from among those which were not designed specifically for either second langauge learners or scientists. Those decisions may not necessarily be correct. Instead of accepting these materials at face value, instead of assuming their suitability for our students, and instead of letting our initial decisions govern our program, we are reviewing, evaluating and learning about the materials.

APPLYING SECOND LANGUAGE ACQUISTION RESEARCH IN ESP

Margaret M. van Naerssen
Graduate School English Language Center
Beijing, PRC

This article discusses how a primary focus on the learner, in the form of insights from second language research, is being implemented in an EST program in Beijing, jointly conducted by the Chinese Academy of Sciences and the University of California, Los Angeles. A number of insights on second language acquisition/learning processes, from the work of a number of researchers, have been synthesized by Krashen (1980) in the Input Hypothesis. As one of the basic assumptions of this EST program, this hypothesis combines with the academic/survival/general cultural needs of Chinese scientists going abroad for post-graduate research and study, to shape the curriculum. Below is a summary of the basic assumptions of the Input Hypothesis, general ideas for implementing the hypothesis, and a few specific program features that support this student-based focus.

Summary of the Input Hypothesis*

The Input Hypothesis emphasizes acquisition (subconscious) and not learning (conscious learning of rules about a language). We acquire by understanding language containing structures a bit beyond our current level of competence through context or extra-linguistic information. Spoken fluency and accuracy emerge; they are not taught directly. The focus is on communication, not form. When speakers talk to acquirers so that the acquirers understand the message (roughly tuned to listeners), speakers may be providing optimal input that is superior to a finely tuned syllabus (for example, a grammatically sequenced syllabus).

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*S.D. Krashen. The Input Hypothesis. Paper presented at Georgetown Roundtable on Languages and Linguistics, Georgetown University, Washington DC, 1980 (to appear in Roundtable Monograph).

Thus summary is from the above-mentioned paper with only very minor editing. The three main categories under Application of the Input Hypothesis are from an unpublished manuscript by Krashen. Some of the subcategories come from Krashen, personal communication; some are my own.

Application of the Input Hypothesis

1. Provide comprehensible input:

a. By using visual means: blackboards, posters, slides, videos, and films to support native speaker input. Attractive posters on scientific topics with short excerpts to support photos to encourage casual reading decorate Learning Center walls. Films, videos, and tape/slide shows provide support for some of the native speaker input in daily plenaries (for relaxed listening).

b. By using other extra-linguistic means, such as knowledge of the world: use familiar topics. The program uses science topics of general interest to scientists of mixed technical backgrounds for several courses. In intermediate culture classes student start from their own cultural perceptions about their own and foreign countries.

2. Provide strategies for obtaining comprehensible input:

a. By teaching conversation management strategies so students can learn to control the input to some extent. At all levels such strategies are taught. At the most advanced level students use them in seminar discussions, teaching, and panel presentations.

b. By teaching (focussing on) listening and reading for main ideas. A content course, Philosophy of Science, is taught as a university lecture/discussion group course, providing focus on content and main ideas rather than form. Speed reading is taught to break students of the habit of reading word by word and to encourage reading for main ideas or for specific information.

c. By teaching (focussing) in listening and reading on contextual guessing. The content course and plenary lectures (where focus is on content and not form) encourage contextual guessing. The intermediate reading materials develop the skill of contextual guessing.

d. Assisting students in introspecting on their own strategies and in considering which of those might be changed. Next year an introspection technique for identifying reading strategies developed by Hosenfeld will be used. In plenaries students learn some basics about the language acquisition/learning processes to help students identify their own strategies, to maximize their own abilities and opportunities.

3. Lower the social filter to allow students to be receptive to comprehensible input. This covers anything considered "humanistics." Some examples are:

a. Provide an interesting message (from the students' view). Cultural classes provide information students will need for survival overseas. Students evaluate topics used and recommend others. Two of our Chinese teachers were involved in the initial curriculum development. A survey of Chinese scientists in the U.S. provided input for culture classes.

b. Avoid putting the student on the defensive by excessive error correction. Teachers are encouraged to correct only after a student has completed a message if the error seriously hinders communication or if error is in an item being focussed on at that time.

c. Avoid putting students on the defensive by excessive demands for premature performance. In advanced writing class students contract to complete certain written products, choosing assignments within the range of class objectives.

d. Avoid frustration by allowing for individual differences in abilities, interests and learning strategies. While the program focusses on input and not grammar, some students may feel a need for or want rules. For this, an optional, self-instructional grammar program is being planned for use in the Learning Center. While many of the program materials are of general interest across scientific disciplines, students have access to some specialized materials and in their speaking classes have opportunities to talk about their own research interests in practice teaching, research teams and in individual presentations. The Learning Center has several self-instructional programs (for reading, writing, and listening) for students to use at their own pace and level.

e. Explain to students the rationale for a particular teaching approach, especially if it is different fron approaches that they are familiar with. New students receive an orientation lecture by the Chinese director, including a brief introduction to the program rationale and methods. Midway through the first ten weeks the American Chief of Party gives a plenary talk with the objective of getting the students to relax, to try to focus on the message and not to become overly concerned about the form. In the second ten weeks approximately eight of the forty-five plenary sessions deal with second language acquisition processes and how they relate to program activities.

Research is beginning in this EST program to test out the application of the Input Hypothesis in a foreign setting. While the hypothesis remains at a testing stage, it does provide the program with a student focus and a program rationale supported by some evidence from second language acquisition research.

DATE CHANGE:

THE DATE FOR RESPONSE TO THE ESP TEACHING SURVEY (C.F. ISSUE #50) HAS BEEN EXTENDED TO NOVEMBER 1.

COMPUTERS IN ESL?

For over a decade, the American Language Academy has been in the forefront of ESL/ESP instruction and innovation, with programs throughout the United States at the university, secondary, and primary school levels.

The American Language Academy is now pioneering microcomputer-based CAI – Computer-Assisted Instruction – in the field of ESL. ALA's educational software includes interactive learning modules in general and special purpose ESL to supplement existing curricula.

The American Language Academy will offer a five-day CAI Seminar in November, 1981, an opportunity for professionals in the field of ESL to learn about the operation and applications of microcomputer-based CAI. To ensure adequate individualized attention and access to computers, enrollment will be strictly limited. For more information, please write:

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NEW METHODOLOGY IN JOURNAL WRITING

A TRIAL METHOD FOR TEACHING TECHNICAL WRITING TO NON-NATIVE SPEAKER-SCIENTISTS AT GSELC

Yu Zhen-zhong,
Director, GSELC

How to teach writing to a class of 25 with the purpose of getting the students practicing more without the teacher being involved in correcting too many papers and yet have the writing be more than busy work? This has long been a pressing issue for writing teachers. Since October 1980 a new method - JOURNAL WRITING - has been used in a technical writing class at the Intermediate Level in GSELC - the Graduate School English Language Center in Beijing, a joint program by the University of California, Los Angeles, and the Graduate School, Chinese University of Science and Technology.

Journal writing is based on the assumption that effective technical writing for a second language learner-scientist demands clear and logical thoughts, a good organization of materials and facts and a sufficient proficiency in English. In each of the aspects what a teacher can do to help his students is really limited. In the end, the only way for any English learner to acquire the ability to write better and faster is to practice more. Journal writing is a way to help the student-scientists to organize their ideas and then put them in English quickly.

THEORETICAL SUPPOSITION

It seems to the writer that the major concerns in teaching writing are the choice of topics, organization of facts, rhetorical style and correctness of the language. One aspect which seems to be equally important for second language learners but which seems to have been neglected, is the speed, or fluency in writing. For instance, in China emphasis on accuracy of using English in writing has been the primary focus, but little thought is given to increasing the speed of writing. To meet these needs the idea of journal writing was originated by Dr. Janet Kayfetz, a senior scholar and writing coordinator at GSELC in cooperation with Yu Zhen-zhong, the director of GSELC. This was then developed by Yu in his writing class. The purpose of journal writing is to provide the students with an opportunity to base their writing on a communicative approach with less focus on form and accuracy, and thus give the students an opportunity to work on ideas and speed in writing.

METHOD

Twice or three times a week the students are asked to write for 10 minutes in the class with the purpose of practicing the skills they have just learned in class. The teacher will not correct any of the writing. After a topic is given at the beginning of the class, the students are required to think for 1 or 2 minutes, and as soon as the students begin writing they are not supposed to stop to think either about grammar or vocabulary. The topics are well chosen on the basis of a questionnaire and a list of conventional subjects for expository writing to suit the students' interests. The topics in the list provided below seem to be interesting and easy topics for the Chinese scientists.

My Profession
My Lab
Why I Like Science
My Idea of Learning English
An Unforgettable Experience

The Generation Gap
Success and Failure
The Requirements for a Good Scientist
Qualities of a Good Book
What I Intend to Do When I Finish My
  Studies in GSELC
Two Months at GSELC
My Favorite Scientist
Social Problems in China
Acquiring Knowledge
Curiosity
Hypothesis
Observations
My Attitudes Several Years Ago and Today

RESULTS

Nine weeks of journal writing reveals tremendous progress in the writing speed of the students. I, as a teacher, really became excited about the results. Without exception everyone is advancing. Here is the chart showing the advances of the students in a class of 24.

Number of lines students wrote in 10 minutes	Number of students	
	October 1980	January 1981
26 and above	0	3
20 - 25	2	8
15 - 19	6	8
10 - 14	12	4
5 - 9	4	1

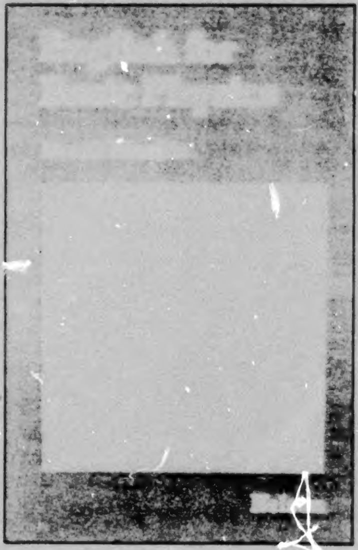
FEEDBACK FROM THE STUDENTS

In response to the questionnaire about how useful they feel journal writing is for the improvement of writing abilities, almost all of the 24 students gave positive answers (very useful - 6, useful - 11, somewhat useful - 6, and only one thinks it not so useful. Interestingly enough this very student is the lowest one in writing speed).

As to the question of in what specific aspects journal writing activities seem to be helpful, let me just quote the students' comments (without any polishing): "help write fluently", "help build vocabulary", "help with spelling", "help write grammatically correctly", "help think in English", "help think quickly", "help organize writing", "find mistakes and correct afterwards", "practice useful expressions", "make one think in English", "help learn English", "practice grammar and vocabulary", "have the choice of the method of writing", "a good way to practice writing ability", "increase the ability to use English", "increase the speed of writing", "enable to write without stopping to think", "practice the skills learned in class", "learn through the mistakes made in journal writing", "record daily studying, working and living", "sum the experience and problem", "help to increase the ability of studying and working", "practice how one can express oneself in English", "help one to think in English and also speaking English", "reveal the weaknesses in linguistic knowledge", "help to see the progress". Some of the above comments were anticipated, such as increasing the speed of writing and promoting the writing ability, but that journal writing helps speaking and thinking in English is beyond the expectations.

ENGLISH
FOR BASIC
PHYSICS
David Blackie
- for intermediate level students
- introduces the student to [illegible] basic language of physics
- contains 20 units each concerned with a key aspect of the subject
- provides practice over a range of integrated skills
- is accompanied by a Teacher's book containing notes on the course, a key and extra practice material

Students' Book 0 17 555319 X
Teacher's Book 0 17 555320 3



Nelson

As for the negative aspects of journal writing the students wrote: "students cannot find mistakes by themselves", "being rough", " write too fast to correct mistakes in grammar and usage", "one minute is too short for one to think what to write", "some topics are too broad to write well", "no one corrects journals". And only one student commented: "Journal writing may be taken as an evidence for being attacked during the cultural revolution." (This relates to conditions in the so-called cultural revolution when any individual's diary could be quoted as evidence of his "counter-revolutionary activities").

And as a whole, the positive comments much outweighed the negative ones (123 against 42).

PERSPECTIVES

I see journal writing as one effective way of teaching and practicing writing. Its main purpose is to get the students accustomed to writing faster without stopping to think about the rules of grammar. Combined with other methodologies, such as homework assignments corrected by the teacher and the rewriting of compositions, it can serve as a means to help the students improve their overall proficiency in English writing. Choosing topics seems to be of great importance: they should be appealing, easy for the students, and related to the activities of scientists. Peer correction or blackboard correction might be worth trying. Hopefully, further results will be reported about how helpful journal writing is to effectiveness in communicative writing.

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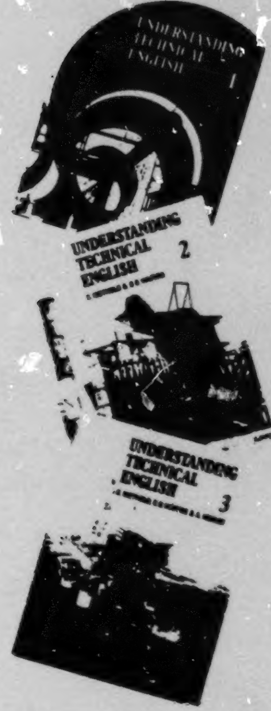

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AN ESP TESTING PROJECT

James Dean Brown, Ph.D.

Many attempts have been made to define ESP. Such definitions usually encompass English language instruction which is:

> *(1) devised to meet the learner's particular needs; (2) related in themes and topics to designated occupations or areas of study; (3) selective (i.e., "not general") as to language content; (4) when indicated, restricted as to the language "skills" included (Strevens, 1979, p. 4).*

While this does seem to summarize the characteristics of ESP in general, it still lacks one element essential to any good English language program, i.e., student evaluation, or what Carroll (1980) has recently called "testing systems"(p.5).

Language testing in general has become fairly sophisticated, yet little has been done to test the various areas of ESP (with the obvious exception of Carroll's 1980 book). In response to this need for ESP testing, a project was begun at UCLA in November 1979 to explore, develop and evaluate a methodology for creating ESP tests. Nine people were the primary movers in this effort, but many others gave helpful advice and suggestions. Dr. Frances Hinofotis, Dr. Russell Campbell and myself guided six MA students in Teaching English as a Second Language (TESL) at UCLA (Melinda Erickson, Michael Linden-Martin, Barbara Miller, Josette Molloy, Anita Orlowski and Philip Owen) in the development and pretesting of ESP tests for engineering students at the undergraduate level.

As a group, our first task was to decide what language skills should be tested. Candlin et al (1978) investigated the "macro" study skills involved in four different EAP study situations: lecture, seminar, tutorial and private study (p. 199). The listening comprehension skill was at the top of their list for lectures, seminars and tutorials, and for private study, reading comprehension headed the list. Accordingly, our first priorities were to test listening and reading comprehension.

We chose to use videotaped and textbook-based "genuine" material as the basis for our tests in order to be consistent with Widdowson's (1978) distinction between "use" and "usage" (p. 80). The more prescriptive "usage" was of little interest to us because so little is known about what should be prescribed for EST. "Use," on the other hand, was attractive because it could help us to build "genuine" tests, which in turn could help us to understand "usage" as it occurs in engineering classrooms at the university level.

The videotaped lecture-listening tests were each based on three to five hours of "genuine" taped lectures of the three cooperating engineering professors.[1] Each of three MA students worked with a different professor's lecture tapes. The tapes were made of courses that were general engineering requirements, yet not beginning courses, i.e., had engineering prerequisites. They were, therefore, junior (or third) year courses. Three eight to twelve minute relatively formula-free segments were extracted and transcribed by each of the MA students from his/her professor's lecture tapes.

All nine segments were then analyzed for length, number of words per sentence and t-unit, number of prepositional phrases, number of "hard words"

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[1] Three professors were used in an attempt to control for individual differences in teaching style and language use.

(Lorge, 1959), etc. The three most comparable segments were selected for making the tests.

The reading comprehension tests were based on the textbooks used by the professors in the same courses that were videotaped. Again, three 600 - 800 word relatively formula-free passages were selected by each of the three other MA students. The resulting nine passages were compared on the basis of the Lorge (1959), Flesch (1948) and Fry (1977) readability formulas. Then again, the three most comparable passages were chosen for use in the tests.

Both the lecture-listening and reading comprehension groups individually analyzed their respective taped segments or reading passages for "bits of meaning." These were classified into purely linguistic factors, as well as engineering and EST factors as follows:

A. Linguistic factors
  1. Cohesion (after Halliday and Hasan, 1976)
    a. Reference
    b. Substitution
    c. Ellipsis
    d. Lexical cohesion
    e. Conjunction
  2. Vocabulary (non-technical)
B. Engineering factors
  1. Facts
  2. Inference
  3. Vocabulary
    a. Subtechnical
    b. Technical
  4. Rhetorical functions (Lackstrom et al, 1973; Selinker et al, 1979)

Next, item specifications were formulated and written for each of the classifications in the above analysis. Three to five items were written and extensively reviewed for each classification by both linguists and engineers. After each item was further reviewed for desirable item characteristics (see Mehrens and Lehmann, 1975, pp. 273-290), directions were written and the tests were assembled.

The pretest version of the lecture-listening tests each included a videotaped lecture of eight to twelve minutes and 35-50 printed multiple-choice items. The students watched and listened to the lecture, while taking notes, then answered the questions. The reading-comprehension tests required the students to read a 600-800 word passage, then answer approximately 50 multiple-choice questions. They were allowed to refer back to the passage.

Pretesting was first done informally within the UCLA TESL section and Engineering department in an effort to iron out any remaining problems with the directions or individual items. Then for each of the six tests, 15-50 subjects were pretested from each of the following four categories: 1) native-speaker engineering students, 2) native-speaker humanities students, 3) non-native engineering students and 4) non-native humanities students. All of the subjects were second or third year students at UCLA.

The results of the MA theses indicate that all of the individual tests were fairly reliable when used with a combination of non-native engineers and non-engineers (see individual UCLA MA theses filed 1980-81). The validity of the tests was also demonstrated in the sense that they significantly separate those who were expected to command the language of engineering (engineers) from those who did not (humanities students) among both native and non-native students.

The project is now continuing with a focused look at the reading tests. All three have been revised, shortened and combined into one test on the basis of item analysis of the pretest results with a view toward maintaining the balance of "linguistic" and "engineering" item types mentioned above. The revised reading test will be administered to engineering and humanities students in the People's Republic of China, as well as comparable native-speaker students at UCLA in order to answer the following research questions:

1) What are the descriptive characteristics of the EST reading comprehension test for engineering?
2) To what degree is such a test reliable?
3) What is the best length for such a test in terms of the trade-off between test length and reliability?
4) To what extent is such a test valid?
5) Does such a test show a significant difference between native engineers and non-engineers, between Chinese engineers and non-engineers, or between native and Chinese engineers?
6) Does such a test show a significant difference between Chinese engineers and non-engineers when overall English language ability is controlled?
7) Does such a test show a significant difference between Chinese engineers and non-engineers when both overall English ability and knowledge of engineering content are controlled?

Answers to these questions will not only lead to the refinement of a reading test, but also to a test development methodology for EST. This methodology will be quite different from that advocated by Carroll (1980) in that our purpose is quite different from his. Carroll uses a criterion-referenced approach for assessing the student's language performance in terms of his communicative needs (p. 5). Our tests, on the other hand, do not presuppose a knowledge of what the needs are for all of the specialities in engineering. We assume instead that, based on "genuine" materials, we can separate students who read/speak basic "engineerese" well enough to succeed at university from those who do not. Such separation, or spreading out of students, is best accomplished with norm-referenced testing techniques. Thus, the two test-development methodologies are not in conflict. Instead, they differ in purpose and, in fact, may be complimentary to each other.

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ADDING SIGHT AND SOUND TO COMPUTER ASSISTED INSTRUCTION: INTERACTIVE VIDEO

Kearney Rietmann

Most people in education and training have had at least an introduction to the world of computers and advanced video technology. They may not have bought their own computer yet, or collected a library of their favorite films for a video system. But, if only from advertising, they know about the engaging fun of computer games, the possibilities for showing commercially made films in their homes, and the chance to record television programs so that they may never miss an episode of their favorite series again.

Now a new media system called interactive video brings advanced technology to the classroom, combining the liveliness, interest, and immediate feedback of computer assisted instruction with the visual capacity of video.

The System

Interactive video equipment, or hardware, is made up of two components. One is a microcomputer, like an Apple computer, which looks like a portable television set with a typewriter connected at the front. The other component is a video tape or videodisc system such as those made by Sony or Panasonic (Thomas, 1981).

The instructional program, or software, combines a narrated video film with a computer program to present an education or training course. A number of such software programs have been developed for education and training. One program, developed at the Chevron USA, Richmond Refinery in Richmond, California, will be described in this paper.

How the System Operates

The interactive video system is controlled by a computer program which first presents a section of a training film for the learner to listen to and watch on the microcomputer screen. Then, when a specified part of the film is reached, the computer stops the video system and replaces the picture on the screen with a display of text. The display introduces an exercise which might, for example, quiz the learner on the training segment just shown. The learner reads the exercise and responds by typing in answers on the computer keyboard. Then, depending on the answers typed in, the program replays the film or advances to the next appropriate section of the course

A model training course developed at the Richmond Refinery provides an example of how the system works. The program begins with a video film of an instructor showing how to fill in a form to carry out a safety procedure. The form and the sequence of steps for filling it out are shown and explained verbally by the instructor. Then, at the end of the demonstration, the computer is programmed to stop the film and display written questions about the procedure on the screen. The learner, in response, types in answers on the keyboard. If all the answers are right, the computer program moves on to the next step in the training module. However, if the learner misses a question, the program branches[1] to the section of the tape corresponding to the questions the learner missed. For instance, the learner may have correctly answered questions on steps one and two of the procedure, but missed those on step three. The incorrect answers automatically display on the screen again the part of the program for step three. Then, once the learner has reviewed the procedure and answered the questions correctly, the program moves on to another training segment.

Interactive Video and English Language Teaching

For English language learners the most important aspect of the interactive video system is the capacity for combining sight and sound audio-visual features with step by step programmed instruction. For both beginning and advanced learners, courses designed for the system can present objects and actions (particularly those not usually found in a language classroom) and identify them verbally. Such courses can present a story or sequence of actions, stopping periodically to have the learners use the computer keyboard to type in summaries, answers to questions, or predictions about what will happen next. In an English for academic purposes course, programs can show students how to use the library and carry out research. For students of English for science and technology, the film and audio track can do such things as identify tools and equipment and describe how they are used. They system can show people giving and following instructions and demonstrating procedures. And, as often as they wish, the students can have the objects identified or the procedures demonstrated, because the system will patiently repeat any section of the program until it is completely understood.

Conclusion

Interactive video, a new combination of video and computer assisted instruction, has great potential as a tool for English language teachers. In the future it may be possible to adapt computer games to language learning, to have students speak directly to their computer rather than use the keyboard, to have the computer check student pronunciation, or to provide access to library resources. The video systems and microcomputer are already on the marketplace (Thomas, ibid.), and teachers and students alike can look forward to new curriculum designed for the technology.

Continued on pg.5

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[1] A branch operation directs the computer program to follow a sequence of instructions not in the regular sequence.

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Continued from pg.4

I would like to thank John A. Kasley, training representative at Chevron USA, Richmond Refinery in Richmond, California, for demonstrating the interactive video system to me and for making many useful suggestions about this paper.

THE ESP JOURNAL

A review by Marjorie K. Morray

The first issue of the ESP Journal, which came out in November 1980, is a compact source of valuable information for ESP professionals. As stated by Robert Fox and Grace Mancill, editors, the objectives of the publication are to "serve as a forum for the fruitful exchange of ideas... and to help to bring greater unity to the efforts of ESP practitioners in diverse settings around the world." Moreover, it is "dedicated to dissemination of information concerning all aspects of ESP — vocational, occupational, and academic. It aims to encourage basic research and also to show how the results of research may be implemented in the preparation and presentation of teaching materials." Carol Romett, Associate Editor, states that the Journal will affirm and encourage achievements in research, program design and methodological approaches that have led to identification and fulfillment of specific learners' purposes.

This review will examine the content of the Journal's first issue in the light of these objectives.

A quick look at the table of contents convinces the reader that the publication intends to disseminate "information concerning all aspects of ESP — vocational, occupational and academic." Articles on textbooks and needs analysis are followed by Johns' study of cohesion in written business discourse and Dubois's discussion of the use of slides in biomedical lectures. Similarly, the book reviews, beginning with David Wyatt's comprehensive, excellently written article on Reading and Thinking in English, cover a range of materials, from the theoretical to the practical and from the specific to the universal.

John Swales' article "ESP: The Textbook Problem" brings to the attention of the reader an important concern of many professionals, e.g. Jack Ewer, Tom Hutchinson, Alan Waters. In it Swales not only presents a thoughtful, provocative analysis of the reasons for the parlous state of ESP materials, published and unpublished, but undertakes the daring task of setting forth a format for such works. Whether one accepts Swales' design or not, it should arouse animated discussion among authors and publishers. (I look forward to Jack Ewer's treatment of the textbook problem in a forthcoming issue of the Journal.) Certainly "ESP: The Textbook Problem" speaks to the goal of exchange of ideas leading (perhaps) to a greater unity in the efforts of ESP practitioners, most particularly in the area of materials design.

"A Reevaluation of Needs Analysis in ESP" by Fred Chambers of the University of Essex is aimed at fulfilling an important Journal goal, the formation of consensuses in unresolved problem areas. In this case, the discussion centers around the nature of "needs analysis," the different levels of need, and the procedure for carrying out a needs analysis in close connection with course design. Chambers' article deals with a problem discussed by Waters and Hutchinson ("ESP at the Crossroads," ESP Newsletter, March 1980), in which the latter lament the isolation of needs analysis from course and curriculum preparation. Moreover, Chambers attempts to limit and restore order to the proliferation of terminology that has occurred as a result of the lack of unity among professionals dealing with needs analysis. Attacking the principal source of ambiguity, namely, the term "needs analysis" (the word "need" itself is a very slippery item), the author requests that needs be determined by a TSA ("Target Situation Analysis"). Thus, he limits and identifies the sense in which "needs analysis" is employed in ESP. On the basis of the TSA, objectives for a given course and syllabus may be formulated. However, the process is not complete until the constraints which may interfere with goal attainment, e.g. time, money, student ability or interests, have been identified. One function of skillful course design is minimizing such constraints so that they may interfere with objectives as little as possible. Finally, Chambers prescribes monitoring of goal achievement on the basis of intermediate objectives, which serve as stages en route to need fulfillment and may be revised as change is indicated.

An impressive amount of data and interpretation forms the basis of Ann Johns' "Cohesion in Written Business Forms: Some Contrasts." Johns examined three types of applied and academic written business discourse: letters, reports, and textbooks for evidence that "constellations" of cohesive items occur therein. Her data indicate that lexical cohesion (the use of the same term, synonyms or near-synonyms, superordinates or general terms, and collocation) is the most common device employed for achieving cohesion. Although her results do not show that "constellations" of cohesive items occur in either applied or academic discourse, they do occur within each of the letter types examined and within reports and textbooks respectively.

Johns' findings are illuminating indeed. The only addition that the reviewer, a teacher, might desire, would be a few concrete recommendations as to how the instructor could incorporate this information into classroom methodology, thus putting theoretical research at the service of the practitioner, an objective of the ESP Journal.

Betty Lou Dubois' analysis of the uses of slides in biomedical lectures permits non-scientists a view into a hitherto unfamiliar area. The motives for employing slides seem to be generally the same as those for the use of visuals in other fields, namely, the ability to portray that which is difficult to describe, efficiency, mnemonic power, and interest.

An ERIC bibliography of VESL materials and a list of recently received ESP publications completes an issue which, among its features, disseminates a variety of ESP information, both informative and provocative, much of which can be of service to professionals in the field. These goals are achieved through publishing the results of research and objective consideration of contemporary problems in English for Specific Purposes. In summary, Journal goals are well achieved in this issue. ESP practitioners should welcome its addition to the resources available for their guidance and information.

INTERNATIONAL SYMPOSIUM ON LSP
(LANGUAGE FOR SPECIFIC PURPOSES)

The International Symposium on LSP (Language for Specific Purposes) will be held August 2, 3, and 4, 1982 at Eindhoven University of Technology, the Netherlands. It is being organized by the Department of Applied Linguistics of the Eindhoven University of Technology in collaboration with the Faculty of Educational Studies of the Open University (UK), the AILA LSP Commission and the UNESCO ALSED LSP Network.

The title of the symposium is *Reading for Professional Purposes in Native and Foreign Languages*. There will be discussions of various aspects of this theme, mainly taking as a basis reports of experimental research. This research conference will be held just after the Ninth World Congress on Reading organized by the International Reading Association in Dublin, Ireland. There will be a small number of invited papers, and several selected papers. Participation is also open to those not presenting papers.

Call for Papers for the International Symposium on LSP

The Department of Linguistics has issued a call for papers for this symposium. Abstracts should be postmarked no later than 31 December 1981, but EARLY MAILING IS ENCOURAGED.

The theme is *Reading for Professional Purposes in Native and Foreign Languages*. The main psycholinguistic issue is: How is the reading skill which one has acquired for texts in one's native language transferred to the reading of a professional text in a second/foreign language? The emphasis is on transfer, though papers may concentrate on either native or foreign language reading (or, of course, both).

The organizers are calling mainly for papers reporting experimental research (as most reviews will be given by invited speakers). Examples of topics of interest are:

1. transfer processes between first and second/foreign language reading for professional and for academic purposes;
2. first language reading studies, with a claim to generalizability to second/foreign language reading for professional purposes;
3. differences and similarities between first and second/foreign language reading in education and professional purposes, holding the language constant (for instance: English read by both American and Arab engineers);
4. quantitative linguistic research with potential application to reading professional texts in a second/foreign language;
5. principles and programs for the learning and teaching of reading a second/foreign language in connection with the above points.

Preference is for hypothesis-testing research, although exploratory and replication studies are not excluded, nor are reviews of literature and reports of theory-based pedagogical developments. Papers on published experimental research will also be considered. Presentations are limited to 30 minutes, and will be followed by a 15 minute discussion period.

Advice on proposals

Those considering submission of papers are welcome to discuss or query the suitability of the content by post to the conference mailing address (Eindhoven University of Technology, Department of Applied Linguistics, H.G. 8.25, P.O. Box 513, 5600 MB Eindhoven, The Netherlands), or by telephoning Jan Ulijn (NL 40 472914) or Tony Pugh (UK 0532 583533).

Abstract requirements

Abstract submissions should include three (3) copies of a one-page, double-spaced summary of the paper in English (French can also be accepted), with a title, and each author's name, address, phone number and affiliation (approximately 300 words).

Abstract preparation guidelines

a. All research must be completed (i.e. no promissory abstracts);

b. no papers already presented at other conferences will be accepted, but presentations may be based on reports published in journals;

c. abstracts should contain: (where appropriate) a statement of the hypothesis; a brief account of the study performed, data and results, a summary of conclusions from the research as it relates to the theme of the conference.

The authors will be notified of the committee's decision by 1 March 1982. It is hoped that some of the papers presented at the symposium will appear in a special book on the theme, edited by J.M. Ulijn and A.K. Pugh. Authors should, therefore, bring three (3) photocopies of the full text to the conference.

Abstracts should be sent to:

J.M. Ulijn and F. Heynick

Department of Applied Linguistics
Eindhoven University of Technology
H.G. 8.25
P.O. Box 513
5600 MB Eindhoven
The Netherlands

VESL Exchange............

OCCUPATIONAL COUNSELING FOR LEP ADULTS

Nick Kremer,
Valley Vocational Center
La Puente, California

LEP adult immigrants enter the United States with little awareness of the occupational options here, no knowledge of how to assess the transferability—if any—of their skills, and little concept of choosing an occupation and developing a plan of action. The vocational counseling services that do exist are closed to them because of language and may be culturally inappropriate as well. These problems are accentuated even more among immigrant subgroups from places such as rural Mexico or the mountains of Laos where they have had little formal education or prior experience with technological society.

Vocational assessment and counseling are two of the more neglected aspects of employment and language training programs serving the LEP. Where services do exist, they are usually stopgap efforts. Obviously the accessibility of existing services is severely limited by language—few counselors are bilingual and most occupational assessment tests are in English.

The problem goes beyond language and the availability of bilingual materials or counselors; it is also a cultural problem. Immigrant adults are apt to be coming from cultures where peoples' occupations are determined by what their fathers did or what their families have traditionally done. At best their options have been limited by the narrow economic bases of their communities. The notion that they are free and able to make choices is novel and difficult for them to comprehend. The immeditate economic demands of supporting a family and/or sending money to bring relatives to the United States limit options and are more likely to determine occupational choices than a job's suitability or long-range prospects. A different but significant problem is presented by some adult immigrants who may place complete trust in an assessment test or counselor, products of a technological society which the immigrants trust and are awed by. This calls into question the American counseling model which suggests a careful assessing of skills and interests, looking at a wide range of options and then making a choice. Such a model must be adapted to an adult population that has immediate needs and limited skills and that is governed by different cultural factors.

Vocational guidance for LEP adults encompasses three inter-related areas: occupational awareness, the assessment of interests and skills, and counseling. As discussed above, the immigrant may not be aware of the wide range of occupations available in the United States or the education and skills they require. Interests and skills are determined both verbally and nonverbally, with paper and pencil tests as well as hands-on manipulative tasks. While paper and pencil tests are obviously language-and culture-bound, even an occupational interests test relying on pictures may be biased. The picture of an electronic assembler may mean nothing to a ruralSoutheast Asian. Finally, counseling adults to help them match their interests and skills to occupations they might find satisfying poses an additional challenge. No special counseling approaches for this population have been developed.

A number of special projects are under way that are addressing various parts of this question. Patricia Hawkins Katz at San Jose City College in California has developed an extensive manual of career/vocational counseling materials and techniques for use with high school and community college Vietnamese students. The manual considers: (1) assessment (2) career decision-making processes (3) cultural factors (4) job search and interview skills and (5) work experience/cooperative education information. Katz stresses that the career counselor should draw upon the students' total experience and help them set both short and long-term goals. The study identifies two assessment instruments as being especially useful with Vietnamese—the Job-O and John Holland's Self Directed Search. Both are being adapted and translated into Vietnamese. The ideas discussed in the manual are probably most appropriate to the better educated segment of the refugee population.

In Portland, Oregon, Christopher Glenn is developing the Glenn Occupational Scales for Indochinese, a self-administered interest and aptitude test. Test takers will rate their interest in occupations; then they will rate their own aptitudes for particular job-related tasks. This will yield ratings on five scales: data, people, things, artistic ability, and decision making. In October 1981 the test will be available in Vietnamese, Cambodian, Lao, and English. The paper and pencil test will take 10 to 15 minutes, but tape cassettes will be available in the above languages for illiterates.

Other resources being developed include a series of slide/tapes of entry level jobs in the United States being developed in seven languages (Vietnamese, Lao, Hmong, Imein, Spanish, Korean, and English) by Portland Community College, Oregon. The Iowa State Occupational Informational Coordinating Committee is translating 290 occupational descriptions into Lao and Vietnamese. They will be accompanied by a user's manual which will also be translated. The Los Angeles Unified School District has developed a series of career units for high school ESL students (CUES). The project is currently on hold due to a lack of funding. Those interested in Spanish bilingual materials will find bibliographies by Susan Adams and Jeanne Lopez-Valadez worth exploring (addresses are listed below).

SOURCES OF FURTHER INFORMATION:

Adams, Susan. Bibliography of Currently Available Vocational Education Curriculum Materials for use with Students of Limited English Proficiency. Center for Career and Vocational Teacher Education, Western Kentucky Univ., Bowling Green Kentucky 42101.

Glenn, Christopher. Indochinese Cultural and Service Center, 3030 S.W. 2nd Ave., Portland, Oregon, 97201. (503) 241-9393.

Iowa State Occupational Information Coordinating Committee, 523 E. 12th St., Des Moines, Iowa 50319. (515) 281-8076.

Katz, Patricia Hawkins. Vietnamese Career Education Project, San Jose City College, 2100 Moorpark Ave., San Jose, CA., 95108.

Los Angeles Unified School District. Project CUES, Leni Posner, Specially Funded Projects Office, 450 N. Grand, Los Angeles, California 90012.

Portland Community College. Jobs in America (slide-tape set). Developmental Education, Portland Community College, 12000 S.W. 49th Ave., Portland, Oregon 97219.

Lopez-Valadez, Jeanne. Bibliography of Bilingual Materials for Career/Vocational Education. Bilingual Vocational Education Project, 500 South Dwyer Ave., Arlington Heights, IL. 60005.

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English For Specific Purposes

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FROM THE EDITOR

This issue is devoted to an in-depth assessment of the state of ESP. Such critical examination continues to remain an urgently needed activity, and yet one which has not been performed either to the degree necessary or with the involvement of sufficient numbers of ESP practitioners. We welcome this extended critical discussion by Jack Ewer and print it, expecting that it will generate in print the further dialogue necessary to continued and ever more insightful examination, as well as lay the groundwork for continued debate at Hawaii-TESOL of this important topic begun at the Michigan-TESOL ESP forum.

We greatly appreciate Karl Drobnic and Jack Ewer's willingness to share this letter, originally written as an exchange of ideas between the two individuals.

NINE PROBLEM AREAS IN ESP

by Jack Ewer, Universidad de Chile

First of all, I don't think the specific-subject vs. non-specific-subject textbook debate is by any means the most important issue in ESP today: on the contrary, one would say that such a debate has only arisen as a result of much more deeply-rooted and urgent problems. In my view it is these problems which have to be sorted out before the general reassessment of ESP which you are rightly demanding can be carried through and we can all go ahead with a much clearer perspective of the field, and I think it might be a useful exercise to try and delineate these, however briefly and roughly, before going back to the textbook polemic.

As I see it, there are at least nine main "problem-areas" in ESP at present, many of them interconnected. These would be:

1. Lack of research;
2. Lack of specialised teacher-training;
3. Sources of confusion and misapprehension stemming from the rapidly-growing literature of the field;
4. Harmful effect of the concept of "general" ("basic," "common-core") English; and connected to this;
5. Need to consider ESP as a system rather than an addendum;
6. Deficiencies in the present EST textbooks and the reasons for this, which may also apply to other kinds of ESP;
7. General inappropriateness for the rest of the world of materials and methods developed for ESP in English-speaking countries;
8. Lack of realistic evaluation procedures;
9. Problems of administration and status.

I have put lack of research and specialised teacher-training first because both of these set off a series of chain-reactions which have a cumulatively negative effect on the whole of ESP:

1. Research:

As you have pointed out more than once, we simply do not know enough facts about the various aspects of ESP, and in their place we have far too much preconception, speculation, generalisation and pure myth. Research at an acceptable standard of rigor and generalisability is obviously a fundamental necessity, particularly for establishing the main communicative concepts deployed in the different varieties or registers of English with which ESP is concerned, together with their predominantly used language and language-related exponents in each case. Lacking such basic knowledge—as we have seen in the case of EST—textbooks get written which exercise only a fraction of the language the learners require; publishers, reviewers and users alike are incapable of evaluating them correctly; and improvement, except for minor methodological details (though people learn in all sorts of different ways, including apparently stupid ones) becomes impossible. As a result, programmes have little chance of success, the students demand either a change or the abolition of the programme (and in the case of EST this demand is often backed by the science teachers), the ESP teachers themselves are in many cases only too happy to get back to "general" or "social" English which is what they have been trained for and are used to, and the last case of the unfortunate learner is worse than the first. Similarly, if needs analysis is neglected or badly carried out, the consequences are that wrong teaching materials are chosen, programming is erroneous, testing inappropriate, motivation deficient and the same cumulative process leads to the same negative result. Lastly, the results of research need to be published and publicised, firstly, so that practitioners can take advantage of it; secondly, so that it can be checked if necessary; thirdly, so that valid and time-consuming work does not get uselessly duplicated, as happens at present. Happily, the situation as regards publicising and supplying reproductions of published work has been transformed in recent years, thanks to the efforts of the Clearinghouse, ERIC and Sociological Abstracts, Inc.'s LLBA reproduction services: the pressing need is for more published research to begin with,

2. *Teacher-training*:

Lack of specialist training for ESP teachers leads to a similar chain-reaction. If they know little about the language features their students have to master, or about the elements of textbook analysis, they will be unable to choose appropriate textbooks, or to develop their own materials effectively if published ones are not available, nor will they be able to avoid falling into the pitfall of believing that supposedly new "approaches" or methodological refinements are sufficient to compensate for deficiencies in the language taught; if they have not learnt how to conduct needs surveys capably—and nobody is going to do this sort of thing for them!—they may well make serious mistakes in designing programmes in the first place, with the consequences pointed out above; if they have not learnt to apply much more realistic and flexible criteria to the evaluation of their students' performance than is the norm in "general"-English programmes they will certainly waste time, frustrate their students, and place the ends of the programme in jeopardy by overemphasising the inessential and neglecting the truly important; if they have not been trained beforehand to know something about science, technology and business, and to appreciate the aims and methods of the scientist, businessman, industrialist or administrator, they will forever feel strangers in a strange land, with all the concomitants of rejection, alienation from their students, and sharpening of prejudices that this implies. Even if the course-modules have been well-designed and the materials themselves really meet the students needs, this attitude of fear, boredom and non-cooperation on the part of the teachers is amply sufficient to ruin the programme; finally, lacking such essential training, they will also lack all credibility as professionals who are supposed to know their jobs, and the status and esteem to which they aspire will forever elude them.

Yet who is to provide this training? *Ad hoc*, on-the-job instruction merely scratches the surface of the problem; if given at all: it is usually burried, partial, transitory and lacks multiplier effect. Organized training with sufficient time and resources is only available potentially in teacher-training institutions or in university departments of English and Education, where, however, the vast majority of the staff either ignore ESP (or are genuinely ignorant of it), or see it—correctly—as a threat to their own lifelong training, precept and practice, and are therefore frankly hostile to it. In any case, such staff rarely attend any courses, seminars or conferences which may be organized for ESP personnel, and may not even be invited to them, anyway. Thus, although we here have, I believe, done a great deal of useful work in developing specialised TESP programmes for trainee-teachers as well as practicing teachers (1)(2), the problem remains of how to get the teacher-training institutions to adopt such programmes as part of their regular curriculum on a scale wide enough to achieve the required results.

3. *Sources of confusion orginating in the fast-growing literature of ESP*:

At present, the professional literature of ESP compares very unfavourably in quality with that of older and more firmly-established disciplines, and this is perhaps to be expected, to a certain extent, at an early stage of the game. However, by now the ambiguity and lack of clarity in a great deal of the published writing has given rise to a host of misleading impressions, and since these naturally have a snowballing effect with the readers, are adding enormously to the present confused and confusing state of affairs. Thus the general *paucity of concrete examples and references* makes it difficult for readers to judge whether facts or merely speculation and assumptions are in play, and much confident—even dogmatic—assertion is woefully lacking in acceptable evidence to support it (we have given examples of this in the textbook article, but have many more on file!). *Overgeneralisation* is endemic, and creates serious misapprehensions: it is common for an author to describe an experience in a very limited area, say, of EVP, and to write as if it were automatically valid for the enormously diverse field of ESP as a whole, as in the Hutchinson & Waters article, for example (3). Because of the writers' careless use of nomenclature, the *terminology* of ESP is now getting into such a confused and contradictory state that in my experience it is impossible to carry on a discussion about the subject with practitioners outside one's own work-group for more than a few minutes without misunderstandings arising from this source. Although on one hand there may be several different names for the same thing (as in the case of "EVP," VESOL," "EOP" and "Manpower English," for example), the most common problem—and the one with the most serious consequences—is that of one name having different meanings: "needs," for example, is currently being used in at least five different senses (no wonder "Needs Analysis" is a hopeless muddle for most people, though Chambers' article in ESPJ will hopefully bring some order into it); even "non-subject-specific textbooks" apparently mean different things to different people, since to some it means "general"-English textbooks while to others like ourselves it means EST textbooks where the conceptual content is concerned with themes from or common to all sciences (e.g. sources of error in research), and the linguistic/communicative content embodies or should embody the main features of formal scientific explanation and discussion—and note also that "content" has at least two meanings (one British writer, Allwright, distinguishes five!). There are now literally dozens of such ambiguous terms, and it is only too evident that confused and careless terminology both reflects and propagates equally confused and careless thinking. On the other hand, writers who persist in making over-nice distinctions between terms that are usually accepted as similar or cognate in meaning may well be creating more problems than they solve in the aggregate, even when the point at issue is a legitimate one and not debatable or merely banal—"use"/"usage," "cohesion"/"coherence," "authentic"/"genuine," "saying/"speaking" are examples: paradox is an unreliable servant which soon becomes master. Finally, there is tendentious writing, misleading reporting and inaccurate, irrelevant or too-vague referencing, often as a result of authors' undisclosed prejudices, preconceptions or personal interest. All these sources of confusion are multiplying so rapidly, especially as they appear in articles and collections of articles, that it is obvious that a very much stricter control by the editors of the publications in which they appear needs to be exercised in the future.

4. Harmful effect of "basic," "common-core" or "general" English, particularly the school programmes, on ESP:

Although (or because) it is widely realised that language forms and meanings vary with the circumstances in which they are used, it is also assumed that certain forms and their meanings are common to all situations and varieties of English. This belief is called "basic" or "common-core" English, and when linked to indiscriminate conceptual content, "general" English; it is what is aimed to be taught, if not learnt, in the vast majority of ELT courses throughout the world, including those of the teacher-training institutions, is the subject of many years and hundreds, or even thousands, of hours of instruction, and is enforced and sanctified by local, regional, national and even international examinations. However, the harsh reality is that no work of any pretensions to reliability has yet succeeded in establishing what this predicated language should consist of; the result is that "general"-English programmes are based on little more than guesswork, tradition or the whims of the syllabus-designers, and thus differ widely within and between different parts of the world, as a recent International Evaluation Association study points out. It is therefore not surprising that the results of such non-systems in terms of the ability of its students to cope with the English of real-life situations, particularly for professional or vocational purposes, are so notoriously and continuously disappointing that ESP has had to be called into being.

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Unfortunately, the circumstances in which "general"-English programmes are developed and put into operation have a profoundly negative influence on ESP itself, since it inculcates an attitude of mind in teachers and students alike in which it is felt to be natural that the teaching of English is divorced from reality, with no specific objective in view; the time devoted to it virtually unlimited; the linguistic and conceptual content indiscriminate and immaterial; the results measured by inappropriate methods; and finally, where teachers, teacher-trainers and administrators alike are totally insulated against being called to account for their students' lack of success in the real world later on. Yet it is from this atmosphere of unreality, irresponsibility, frustration and failure that both teachers and students come to ESP, where the conditions are the very reverse of those they have previously been accustomed to, and where the demands on the teacher are in many ways radically different. It is no wonder, then, that ESP programmes are loaded down from the very beginning with the ball-and-chain of depressed, insecure and sometimes hostile teachers, unenthusiastic students and sceptical sponsors: until some method can be found of introducing into the school courses the English of the learners' relevant post-school needs, this most serious handicap is likely to continue unabated.

5. Need to consider ESP options as self-contained systems of their own rather than mere addenda to "general"-English programmes:

There are two other deleterious effects of "general"-English on ESP. First of all, there is the widespread belief in those responsible for ESP programmes that beginners or so-called "false" beginners must be submitted to a course of "general" or "common-core" English before being deemed fit to tackle an ESP option. This fallacy presumably has its origin in ignorance of the practical weakness of the "common-core" concept, a willful ignoring of the ineffectiveness of the "general"-English course, and a failure to distinguish between knowing the formal system or "code" of the language and knowing how to use it in real-life communication—the one does not in the least imply the other. Learning the language of real-life communication (i.e. ESP options), on the other hand, automatically involves learning the code as well, and thus provides an already-tested working basis from which the learner of one variety of English can confidently extend his knowledge to others. In other words, rather than require ESP programs to be preceded by "general"-English courses, it would make very much more sense to insist on the opposite.

Secondly, there is the "one subject, one textbook" tradition in ESP, also inherited from "general" English. Yet the notion that the language and use of the more extensive and widely-needed varieties of ESP, such as EST, can be learnt by means of a single textbook, as if it were just another of the series of course-books commonly used in the school programme, has not only proved erroneous but leads to other negative consequences (e.g. restriction of classtime) which may be very difficult to rectify later when the original error has been recognised.

In view of the above, and bearing in mind firstly, that little reliance can be placed on the results of the "general"-English course, and secondly, that for the reasons given in the textbook article (4) it is difficult, if not impossible, to design effective "remedial" courses, for the conclusion must be that the more extensive ESP options need to be developed as self-contained systems capable of catering for the student who knows virtually no English at all, each having a range of textbooks and ancillary materials which lead progressively to the required target performance.

6. Deficiencies in present EST textbooks and relevance for other varieties of ESP:

An analysis of the contents of a representative sample of EST textbooks carried out here recently (4) has revealed a number of serious overall deficiencies with implications for other ESP options as well as for EST itself. The main problems identified were: lack of initial research into the target language, and lack of consideration of such research as had been done, with the result that the teaching points selected for the textbooks covered only a small proportion of the significant features of the target discourse; inadequate explanations and examples; insufficient and unevenly distributed exercises; and a general lack of supplementary aids for both students and teachers (e.g. revision units, glossaries, notes, appendices, AVA, methodological hints, etc.). The custom of having only one textbook for each discipline or group of disciplines involved, together with the publishers' growing practice of shortening the length of textbooks and at the same time allowing an undue proportion of that length to be taken up by illustrations or blank spaces, results in even less being learnt worse. Finally, the lack of specialised training in the background of EST and in textbook analysis, already noted, means that teachers (and reviewers and publishers' advisers) are unable to submit textbooks sufficient to the weight of well-founded criticism to ensure improvement.

7. General inappropriateness for the rest of the world of materials and methods developed for ESP in English-speaking countries:

It is widely taken for granted that students of ESP in English-speaking countries are representative of those of the rest of the world. This is a most misleading assumption: not only are the former a small minority in terms of numbers, but their needs, characteristics, and conditions of study differ widely from the majority of ESP students. Thus, taking EST as an example, students arriving in the U.K. and other English-speaking countries in general not only have a much higher standard of English on entry to an EST programme (since they have had to pass various kinds of English-language proficiency tests before arrival) but their conceptual knowledge of the world and their specialties—i.e. their "Underlying Competence" (3)—is much greater as well (since they are mostly postgraduates rather than the school-leavers which are the norm in countries abroad).

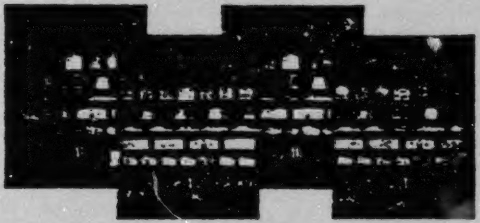
The teaching of EST in these circumstances has led to the growth of several well-publicised "approaches" (inevitably generalised to ESP as a whole!), falling into two main types. The first of these is the "remedial" or "supplementary" course: these form the basis of most of the current EST textbooks, in spite of the fact that as already indicated it is virtually impossible to produce remedial materials which can be applied effectively on a general scale, i.e. to students other than the restricted group for which they were originally written. The second type is what might be called Pentecostal Tongues Movement (since a great deal of the learning is assumed somehow to have already taken place): the most well-known representatives here (apart from the Hutchinson/Waters "solution" discussed later in this letter—are the "studies skills" and "self-directed learning" approaches. However, both of these are designed for relatively advanced and sophisticated students of English (see, e.g. Candlin et al. (5) and Thomas (6) respectively), or apparently unlimited time: they have little to do with the main task of EST teachers all over the world, which is to teach the language of EST to beginners or near-beginners within closely-controlled time-limits.

In EVP, again, the programmes in the English-speaking countries are directed mainly to ethnic minorities resident in those countries. Hence a considerable proportion of the EVP materials developed up to now have been largely concerned with the language needed by these groups for successful social integration, rather than with the technical language of the jobs themselves (see, e.g. Jupp & Hodlin's "Industrial English" (8) in the U.K., Dresner et al.'s "It's Up To You" (9) (U.S.A.), McPherson & Smith's "English in Industry" (10) (Australia), and the socially-oriented dialogues of the textbooks in the Collier-Macmillan "Special English" series—though the last-named are in any case once more directed to the "advanced" learner).

Taking EST and EVP together, therefore, it is clear that materials, syllabuses, timing and teaching methods designed for the context of an English-speaking country—even in the doubtful event that they avoid the other problems considered in Section 6 above—are unlikely to be those most suited to the learners in other countries, who account for by far the greatest demand for these types of ESP option. Unfortunately, the prestige associated with the well-known universities in the English-speaking countries from which many of these materials originate, together with the natural desire of their equally prestigious publishers to extend their sales to markets overseas, has had the result of building up an almost irresistible pressure to have such materials—and any ideas on which they are alleged to be based—accepted without discussion as universal solutions to "the ESP problem." This in turn has tended to distract attention away from the fundamental task of providing materials which will actually teach the language of the different ESP options systematically and from the beginning, which is what is now needed more widely and urgently than ever.

8. Lack of realistic evaluation procedures:

Deficiencies in teaching materials are often hidden and their consequences compounded by the use of irrelevant testing practices. In ESP it is essential to test students on their performance of the real-life tasks involving the use of English that the training-program is supposed to be enabling them to deal with, rather than only on discrete items from textbooks (or the textbook!). Again, performance in ESP cannot be judged by a single standard but needs to be evaluated in terms of the appropriate cline within a flexible series of of intelligibility/acceptability standards established for the different ESP options concerned; for example, certain jobs, or activities within jobs, will demand a near-perfect standard of English (e.g. business letters, flight-control instructions), whilst for others (e.g. a scientist explaining his work orally to a fellow researcher in the same field) considerable deficiencies can be tolerated.



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9. Problems of administration and status:

Although practitioners cannot fail to be aware of the powerful influence which organisational and teacher- and institution-status elements exert on the running of ESP programmes, surprisingly little information on this subject is available in the literature. The little that has been written, however, is very useful, notably Boys 1979 (11) and Swales 1980 (12), mainly on university-based programmes. Insufficient course-time; over-large classes; lack of time and facilities and competent personnel for research, needs analyses and materials; production; inappropriate organisational grouping and administrative dependency; lack of promotion prospects; untrained and transitory teachers; professional isolation; lack of support from specialist departments—these are only a few of the factors which can be at work, and which add enormously to the cumulative burden of the problems in the other areas outlined above. Yet I have put these last on the list since it is difficult to avoid the conclusion that they are much more the result of, rather than contributory causes to, failures in research, teacher-training, materials and syllabus design, and the rest of the problem-areas indicated above. Institutional and professional status, in fact, depends to a great extent on success; and sucess in ESP, as in other fields, cannot be self-proclaimed but must be seen to have been achieved—which is what one hopes will be the outcome of the reassessment the editor of "ESP" has called for.

So much for the main problem-areas—and their interconnections are not difficult to trace—as they appear from here. No doubt there are others which can be added, since it is unlikely that a single player is able to see all of the game; however, one hopes that even a rough and partial analysis will be of value in breaking up the daunting task of clearing the decks into a series of sub-tasks which can be more easily seen and are of reasonably managable proportions. We are also fortunate in that two extensive critical overviews of ESP have recently appeared, each complementing the other, and each containing excellent bibliographies up to their respective dates of publication. These are Jo Ann Crandall's "Adult Vocational ESL" (C.A.L., 1979) which concentrates on EVP, and Pauline Robinson's "ESP: The Present Position" (Pergamon Press, 1980) which tends to emphasize EST/EAP in a wide ranging survey: both are essential reading for all who are trying to make some sort of sense out of the present state of affairs.

Returning to the subject-specific vs. non-subject-specific textbook controversy, one would first have to get clear what is meant by the terms used, and this is slightly complicated by the fact that textbooks have more than one kind of content. The two main kinds are conceptual or thematic (i.e. the subjects and themes dealt with) and linguistic; the latter is (or should be) concerned with the communicative operations—roughly, "notions" and "functions"—typical of the target discourse and the main language—and language-related elements which express them; and their appearance in the contents of a textbook can again be divided into two, viz. those which are simply exemplified in expressing the thematic content, and those which form the basis of specific teaching-point, i.e. are demonstrated, explained and exercised it is the latter which are essential to the learner and which is the main objective of any textbook. From this one assumes that a subject-specific textbook is one in which the conceptual/thematic contents are drawn exclusively from the speciality the prospective students are interested in, e.g. chemistry, geology, engineering, flight controlling, the work of a bank cashier or hotel receptionist, etc., whilst the contents of the non-subject-specific textbook are drawn from other subjects as well; the language contents in both cases must be those predominantly deployed in the target-language of the student's speciality—he can't get on without them. Once the appropriate language and language-related elements are made available to the student, he is able to interpret and use them by virtue of what Hutchinson & Waters (3) call his "underlying interpretative strategies" which are a product of his Underlying Competence (their capitals, not mine!), i.e. his L_1 knowledge of the world, knowledge of the speciality and related fields and its conventions (the latter would include, say, the form and use of graphs, tables, flow-charts, etc. for EST learners; for learners of secretarial English the fact that letters have special layouts, purposes and conventional phraseology, and so on): the textbook writer's and teacher's jobs are to provide suitable opportunities and guidance for the learner to put this knowledge to work in manipulating the appropriate language forms for the appropriate communicative operations. This is what ESP textbook writers have aimed to do for many a year, as a perusal of the textbooks of the last decade or so will show, and Hutchinson & Waters have discovered nothing new here: the problems with the textbooks are elsewhere, as I have indicated earlier in this letter.

Whether the procedure just outlined should be carried out by means of subject- or non-subject-specific textbooks seems to me to depend very much on whether the particular communicative operations (and their particular exponents) required in the target-language situations of a given speciality are transferable to other subjects and other situations. Unfortunately, only a partial answer to this question can be given at present since we still don't know nearly enough about the language of the differenct ESP options. However, for chemistry, geology, engineering and other EST options, for example, where there is a common conceptual basis in general science and a common way of explaining and discussing the various disciplines, and hence where the main communicative operations and their exponents have a considerable degree of homogeneity (see (4) for references) the thematic content can be both non-subject-specific (e.g. draw on themes common to science and technology in general, and/or from different disciplines) and specific: each have advantages at different stages of a program. On the other hand, where there is no such homogeneity (and EVP options, for example, tend to be communicatively heterogeneous), or where the speciality comprises a "restricted" language of relatively small and precise compass (as for flight-controllers, telephone operators and storemen, for example), the specific-subject textbook is the obvious answer, as King has already pointed out.

If one cannot accept Hutchinson & Waters' main contention, i.e. "there is no justification for subject-specific ESP materials," what of their subsidiary one (pp. 3-5 of the "ESP" issue)? These appear to rest apart from a number of assumptions about needs analyses, discussion of the speciality and ESP classroom practices all of which I would regard as debatable—on two basic conclusions they draw from their technical-college study. These are, first, that "except for a few examples of technology" (= technological lexis?), there is nothing specific about the language of ESP—"Everyday language is used" (perhaps an apt example of the "general"-English syndrome referred to in the preceding discussion or problem areas!). Setting aside the problem of just what is meant by this expression in terms of language-teaching objectives, I find it difficult to believe that Hutchinson & Waters are intending to imply (as they are) that there is no essential difference between the language predominantly used by a hotel receptionist, that of a telex from a business firm, a manual of technical instructions or a paper read at a scientific meeting. The second of their conclusions is that the so-called Underlying Competence is the same for all learners. This again appears to be contrary to both common sense and experience. Certainly there are considerable differences in this country between the intellectual and conceptual background of science students or mature scientists who are taking an EST programme at a university and those of school children taking a course of secretarial English at a commercial school, for example. I therefore feel that neither of the two conclusions is justified and that consequently the authors' dependent contentions on language, teacher-training, methodology, reading vs. writing skills, etc. are to that extent also vitiated.

Finally, as a longer article by the authors makes clear (13), their theses are based on a partial and selectively-evaluated analysis (none of the reading and writing language requirements were studied, nor is there mention of the formal technical language used in demonstrations or lectures) of a vocational course for native-English 16-year-old school-leavers. It seems to me entirely unreasonable to suppose that any conclusions arrived at from such a source can be extended to ESP as a whole, with all its widely-differing varieties of language and conditions—still less that they should yield a universally-applicable method, and apparently content, of teaching, as Hutchinson & Waters are at pains to suggest: the crock of gold at the rainbow's end is not so easily come by. Perhaps, after all, a truer image of the present state of ESP is not so much one of being poised dramatically at a crossroads as of struggling painfully to get through a series of roadblocks, as I have suggested in the first part of this letter!

* * *

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SPECIAL NOTE

Louis Trimble will be lecturing at U. of Michigan and the U. of Minnesota just after Thanksgiving. Those who would like to attend should contact Larry Selinker at the ELI, U. of Michigan or Elaine Tarone at Applied Linguistics, U. of Minnesota.

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English For Specific Purposes

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PEBBLES IN THEIR EARS

Marjorie K. Morray, Oregon State University

The title of this article is intended as an analogy between the problems of the Greek orator Demosthenes and those of foreign students in the United States. Whereas his difficulty was speaking, theirs is understanding what they hear in classes, seminars, and lecture halls. And a very serious problem this is, since, in the words of Wilga Rivers, "It has been estimated that of the time adults spend in communication activities, 45 percent is devoted to listening, only 30 percent to speaking, 16 percent to reading, and a mere 9 percent to writing." (1978: 62). Research among language laboratory directors indicates that even with notes provided, international students retain only about 20 percent of what they hear in a lecture.

Analysis of the individual language-learning needs of students of English for Specific Purposes and the examination of the rhetorical features of special registers of English are basic to ESP program, course, and materials design. Built on these foundations, ESP has had a strong impact on instruction in reading and writing for non-native speakers of English. But it has also affected the teaching of listening comprehension skills.

Of importance is the investigation into features which interfere with decoding and comprehension of lecture and other spoken materials. Christopher Candlin of the University of Lancaster identifies reference, backward and forward, as a source of significant difficulty to non-native speakers in a lecture situation. Other problems for the foreign listener are elipsis and the use of substitute words such as "one" and "do."

There is an abundance of material on tape, mostly in lecture form, designed to familiarize non-native speakers with the kinds of discourse features described above. Its goal is to help students decode special language when they confront it in a lecture.

Otto (1979: 319-327) describes a sequence of four exercises in listening for note-taking developed at Arya Mehr University of Technology in Isfahan, Iran. The goals were two-fold: listening skill development and topic coverage. The vocabulary and rhetorical features were oriented toward chemistry. The first exercise was a dictation followed by true/false questions. The second was a cloze exercise on a mini-lecture. Next was a mini-lecture followed by a fill-in note-taking exercise. Finally, a third mini-lecture accompanied by a fill-in outline was presented.

Two types of speech sample, a formal interview and an informal conversation, were used by Snow and Perkins (1979: 51-63) for developing the listening comprehension skills of advanced non-native speakers. Topics such as agriculture, liberal arts, psychology, and sociology were used. A formal interview with an authority in a given area was chosen rather than a lecture because questions could be keyed to the interests and proficiency level of the students. Interviewees, it was discovered, tended to talk in a lecture style in the question-answer sessions. Moreover, the interviewer was able to follow up on points that were unclear or insufficiently covered.

Once the interviews were recorded, students were given written summaries of them as well as special vocabulary and definitions of technical concepts. In addition, students were given a selective list of things to listen for. Thereafter, they listened to the interviews twice, once to answer questions on the content and the second time to check on the accuracy of their responses.

Next, the informal conversations were played. Brief summaries were handed out as were questions for selective listening. The students heard this tape three times.

At the end of these sessions the listeners knew a considerable amount about the topics dealt with. The culminating experience was a speech activity (round table, debate, panel, etc.) in which the learners discussed ideas and reactions stimulated by the interviews.

Candlin and Murphy go one step further than Otto, Snow and Perkins. In addition to analyzing the discourse of lectures given to engineering students at the University of Lancaster, Candlin and Murphy carefully observed and described the lecturers' kinesic characteristics. Eye-contact, illustrative gestures, relevant use of the blackboard, change of position to indicate a new point in the lecture, and pauses which gave students time to digest content were found to be highly important. They made the lecture an interactive event, one aspect of which could not be separated from the others. Thus, Candlin and Murphy conclude that the use of the tape recorder or language laboratory for improving listening skills is inadequate, since it excludes the kinesic features just described. They also reject the dictation, commonly used as a listening exercise, as a valid instrument for developing aural ability. What they call for are excercises including all the elements found in a lecture: authentic content, graphic illustrations, and paralinguistic information. Such true-to-life materials are only available through real lectures, videotaped presentations, or taped lectures accompanied by slides.

An example of this kind of listening exercise was provided by the English department of the National Institute of Electricity and Electronics in Boumerdes, Algeria. Hansen and Van Hemmen, English instructors at INELEC, designed a series of aural comprehension units based on topics in technology and engineering. Faculty members in these areas, whose dialects represented various sections of the United States, prepared mini-lectures of from seven to fifteen minutes on topics they would discuss at greater length in technology and engineering courses. Students were asked to take notes of the lectures. Thereafter, they were given fill-in outlines to complete. All drawings presented by the lecturers were reproduced by the listeners, so that in follow-up sessions they could explain the illustrations to each other.

At the University of Massachusetts and Harvard University, Lezberg and Hilferty set up job interviews between foreign students and Boston businessmen in the students' field of occupational interest. As a result, the former received authentic experiences in the understanding and use of the language characteristic of their areas (1976: 58-66, 148-157).

Oregon State University's intensive English program for non-native-speakers has made frequent use of Greathouse and Peterson's Better Listening Skills (1977), a series of five videotaped mini-lectures ranging from seven to fifteen minutes each. The presentations deal with timely subjects in the biological, physical, and social sciences. An impressive array of material accompanies each lecture. The lessons are designed to improve listeners' aural comprehension, vocabulary development, outlining, reading and writing skills. Although Better Listening Skills has serious technical problems, it is useful for enhancing foreign students' listening ability.

The English Language Institute at Oregon State University is developing a program in English for Business and Economics under the leadership of Barbara Dowling and Marianne McDougal. As a complement to their excellent printed materials, colleagues from the School of Business Administration and I designed three mini-lectures on Management, Marketing and Advertising for presentation to a group of Japanese economists and businessmen enrolled in a special program last spring. The lectures, seven, eight and ten minutes long respectively, were given at a little less than the speed ordinarily used by the professors in their lectures for native English speakers. Vocabulary lists and exercises, diagrams, statements of the lecturers' basic ideas, and incomplete outlines were discussed before the videotapes were played. After the lectures, the content was evaluated and the outlines filled in. Then the group heard the lectures a second time. To the chagrin of all, only a few students in the higher of two classes were able to follow them. For the lower group, it was an exercise in futility.

Videotape, however, is too efficient as an instructional medium to be cast aside because of one failure. As suggested by Dr. Jon Root, Director of OSU's Classroom Television section, the lectures were shortened to three and one-half minutes. Captions were added to the first showing. Introductory exercises based on key vocabulary items and an incomplete outline were used, as in the previous lecture series. Following the first presentation, this time to an audience of non-business students, there was a discussion of its content. Finally, the lecture was played a second time without captions.

The new format has been subjected to experimental study during the last year. Predictably, test results have indicated a significant difference in comprehension between the shorter lecture with captions and the longer lecture without. Moreover, student reaction has been far more positive to the former than to the latter. Test results following the short lecture with and without captions have revealed no significant difference in understanding of content.

In "Learning to Listen" Harvey Taylor provides pertinent commentary on the procedure followed in these videotaped lectures. Taylor opposes the presentation of subject-specific vocabulary prior to audition of a lecture. He maintains that discussion of lexicon before the lecture reveals content even

(continued on page 5)

1981 MINNESOTA ENGLISH INSTITUTE AT XIAN JIAOTONG UNIVERSITY IN PRC

The second University of Minnesota Institute on the Teaching of English for Science and Technology was held from June 18 through July 17, 1981, at Xian Jiaotong University in the People's Republic of China. Faculty for the Institute included Helen Jorstad, Associate Professor of Second Languages and Cultures Education in the Department of Curriculum & Instruction, who directed it, and Susan Gillette, Lynne Ackerburg, and Karen Sorenson, all graduate students associated with the program in English as a Second Language in the Department of Linguistics.

The objectives of the program included development of skills in teaching English for Science and Technology as well as development of participants' own English listening comprehension and speaking abilities.

There were 40 participants, 25 teachers of English and 15 faculty from various Engineering departments at Xian Jiaotong. The six-day-per-week, five-hour-daily program included lectures, follow-up discussions, small-group sessions, laboratory work, and extensive individualized work with participants, each of whom prepared a specialized teaching project for his or her own classes. Demonstrations of techniques for teaching vocabulary, listening, communication, and the like were presented as models for preparation of "micro-teaching" lessons by the language teachers. The curriculum of the Institute was developed by the faculty as a model for in-service training of teachers of English for Science and Technology which might be generalized to other developing nations with similar needs.

A participant's written evaluation summarizes the attitudes of the participants: "The summer English Institute run by the four American teachers is a great success. I appreciate tremendously not only their rich experiences in teaching, but also their working style and spirit. I see in them friendship and a sincere desire to help us to make more progress."

For further information, contact: Mei-Ling Hsu, Director, China Center, 348A Social Sciences Building, University of Minnesota, Minneapolis, MN 55455.

From September 22 to 24, 1981, the Foreign Language Teaching Unit of the Engineering College in Radom, Poland, organized a conference on "The Effective Methods of Special Language Teaching in Higher Education Foreign Language Classes." Its participants were teachers of English, French, German, Russian, and Polish, representing all institutions of higher education in Poland. There were also three foreign guests: two from the Engineering College in Magdeburg/GDR/, and one from the Pushkin's Institute in Moscow.

The conference started on September 22 with a short speech given by Dr. Mieczyslaw Gawin, the head of the Foreign Language Teaching Unit of the Engineering College, who was followed by the Engineering College's Pro-rector.

Most of the papers were in Polish and were presented during plenary sessions. The conference covered many aspects of teaching special languages in higher education foreign language classes. There were some theoretical works, but the majority of them were of a practical nature and were warmly welcomed. Each paper was followed by a discussion. Several papers presented concerns relevant to the ESP field in particular. Selected titles with an ESP orientation included:

"Research on the Choice and Construction of Specialistic Language Teaching Content" from the Russian perspective; by Teresa Wojcik, Engineering College, Czestochowa;

"Criteria for Specialistic Langauge Text Choice and the Role of Exercises During Work on such Texts in Technical College Foreign Language Classes" by Elzbieta Kurkowska, Engineering College, Radom;

"Working with the Specialistic Text during Foreign Language Class" by Zdzislaw Jaroszewics, Academy of Medicine, Gdansk;

"The Concept of a Textbook for Teaching Scientific Language in the Light of Modern Glotto-Didactic Tendencies" by Andrzej Diniejko, Engineering College, Kielce;

"Work on a Foreign Language 'General Economic' Text at the College of Economics" by Ryszard Pancewicz, Main School of Planning and Statistics, Warsaw;

"The Role and Place of Technical Aids in the Improvement of the Specialistic Language of Medical Students" by Anna Stelmaszuk, Academy of Medicine, Bialystok;

"Bilingual Techniques for Teaching Vocabulary to Higher Technical School Students" by Danuta Kukulka, Engineering College, Radom;

"The Use of Semantic Parameters in Carrying Lexical Connectors while Translating Scientific Texts" by Waclaw Sielicki, Engineering College, Wroclaw.

Additional presentations were given in languages other than Polish. The section dealing with presentations in English had two papers with an ESP focus. Elzbieta Krawczyk, University of Silesia, Katowice, presented a paper entitled "Designing Exercises for Teaching the Communicative Use of English to Students of Film Direction," and one of the teachers from Magdeburg/GDR/ presented a paper dealing with organization of teaching special English to students at the Engineering College in Magdeburg.

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PEBBLES IN THEIR EARS (continued from page 2)

before the lecture begins. Thus, students lose the opportunity to listen to real speech with the goal of discovering how much they are able to comprehend. A better procedure, he says, is providing extensive listening practice on the same topic, which enables listeners to identify vocabulary through context.

This author maintains that even native speakers of English who are attempting to understand a lecture or conversation dealing with unfamiliar materials have difficulty in grasping content without some previous contact with the area. Requiring listeners to comprehend material with which they have had no prior experience produces an artificial, context-less situation in which clues normally available for decoding have been removed. What we are striving for in our attempts to develop listening comprehension is the ability to understand the entire meaning and structure of a segment of American English discourse. Thus, to avoid a breakdown of understanding at lexical roadblocks, it seems legitimate to remove such obstacles before the lecture begins.

Moreover, technical subject-specific vocabulary is often difficult to decode through the use of context. For example, words such as partnership and corporation both fit into the sentence "Mr. Jones and Mr. Smith were the founders of a __________," but, without some previous notion as to the differences between these forms of business enterprise, the precise meaning of the sentence is unclear.

Taylor suggests that, instead of presenting students with a variety of lecture topics, each with its own jargon, the instructor should provide extensive listening practice on a continuing topic, so that listeners can gradually evolve a coherent stock of vocabulary centered on that topic. His suggestion is attractive, but such a procedure is difficult to implement for the instructor attempting to discuss, for example, various aspects of business management, each with its own lexicon.

Reactions for and against the presentation of vocabulary items prior to a lecture and the use of captions as means to facilitating listening comprehension have been expressed. The author would appreciate reader comment on both these issues as well as on other ideas expressed in this article.

FOOTNOTES

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BIOGRAPHICAL NOTES

PLAIN TALK FOR INTERNATIONAL DEVELOPMENT

The path to international development is littered with projects that have failed because planners used language and pictures that others could not understand. Poor, semi-literate people in developing nations—who want to know how to repair tractors and generators—rarely know what "implement," "situation improvement," and "timeframe" mean. Yet many writers prepare their written plans and technical manuals with little regard for the "host country national"—the local people who will have to read, understand, and follow their instructions.

David Jamul, the chief editor at Volunteers in Technical Assistance (VITA), has written a book that should help to set things right. Plain Talk: Clear Communication for International Development shows writers, program planners, field workers, and others how to write more effectively for ordinary people in developing countries. This 76-page illustrated handbook clearly shows what some of the pitfalls are in international communication and shows how they can be overcome.

Chapters containing guidelines for planning writing, graphics, and testing are supplemented by chapters on how to use (and how not to use) readability formulas and a chapter on how to convert development jargon into everyday English. Although Plain Talk was written specifically for workers in the field of international development, it will also benefit anyone who writes English in a multilingual or multicultural setting.

The book is available for $4.95 from VITA, 3706 Rhode Island Avenue, Mt. Rainier, MD 20822. VITA is a non-profit organization that teaches people how to use technical and natural resources.

(Reprinted from "Simply Stated," No. 17, May 1981, p. 2)

(continued on page 7)

CONFERENCE, INSTITUTE CALENDAR

APRIL 12-16, 1982

Colloquium of AIMAV (Association Internationale pour la Recherche et la Diffusion des Methodes Audio-Visuelles et Structuro-Globales) in Abidjan, Ivory Coast.

Theme: The Role of Television and Video in Foreign Language Instruction.

Information: P. Kokora, Institute of Applied Linguistics, University, B.P 8887, Abidjan, Ivory Coast.

* * *

MAY 4-9

Sixteenth Annual Conference of TESOL (Teachers of English to Speakers of Other Languages) in Honolulu, Hawaii, USA.

Information: TESOL Central Office, 202 D.C. Transit Building, Georgetown University, Washington D.C. 20057, USA.

* * *

MINNESOTA-NANKAI SUMMER INTENSIVE CHINESE LANGUAGE INSTITUTE IN THE PEOPLE'S REPUBLIC OF CHINA

The University of Minnesota has announced a third intensive Chinese language study program in the PRC for the summer of 1982. Both undergraduate and graduate students may apply for the institute, taught by faculty members of Nankai University in Tianjin, from June 18 through August 20. An optional ten day tour to Xian, Luoyang and Shanghai will be offered from August 20 through August 29. There will be fifteen to twenty hours of instruction a week in Second year, Third year and Advanced Chinese; with periodic field trips and lectures on special topics, such as Chinese opera, geography, linguistics and calligraphy. A four-day visit to Beijing and an optional mini-tour to Chengde will take place mid-session. Fifteen quarter hour credits will be awarded for successful completion of the program.

Tuition costs and accreditation will be handled through the University of Minnesota Summer Session. The total cost (including tuition, fees, room and board in Nankai dormitories and international travel) will range from $2690 to $3150 depending upon the number of optional tours taken.

For Brochure and Application materials send stamped addressed envelope to: Jackie Berg, Minnesota-Nankai Institute, 201 Nolte Center, University of Minnesota, Minneapolis, MN 55455.

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This one-term course, leading to a Certificate of the University, is intended primarily for teachers of EFL who have interest or experience in ESP.

The course aims to give an overview of major concerns in ESP course design, to examine critically current developments in theory and methodology, and to give participants an opportunity to carry out practical work. Areas covered include needs analysis, approaches to the design of syllabus and materials, and testing.

Further details can be obtained from: The Secretary (CTESP), Department of Language and Linguistics, University of Essex, Wivenhoe Park, Colchester CO4 3SQ, Tel: (0206) 862286 Extn. 2131.

* * *

FOURTH LOS ANGELES SECOND LANGUAGE RESEARCH FORUM

The fourth Los Angeles Second Language Research Forum will be held from noon of Wednesday, April 28 until noon of Friday, April 30, 1982. This is just prior to the weekend of the beginning of the TESOL convention, to be held in Hawaii. Preregistration will be $5.00 for students and $10.00 for all others (payable in U.S. dollars in a U.S. bank). For further information, please write:

Thom Hudson, Co-chairman
Jan Lubin, Co-chairman
Los Angeles Second Language Research Forum
English as a Second Language
UCLA
Los Angeles, CA 90024, USA

Abstracts (200 word maximum, 4 copies without name) plus one 3 x 5 card with author's name, affiliation, and title of paper are due by January 1, 1982, and should be sent to Vanessa Flashner, Program Chairman, at the same address. The same abstract should not be submitted to the 1982 TESOL convention. Acceptance or rejection of the abstracts will be communicated by January 15, 1982. A selection of papers from the conference will be published.

EMPLOYMENT OPPORTUNITY

Systran is looking for ESL/ESP/VESL instructors to go to Taif, Saudi Arabia. They must be male and travel as singles. This is an 18 month T.D.Y. Salary starts at $2,300 per month plus per diem, housing and transportation (stipend for those with families left in the States). For further information, contact: Tim Walker, Director for Program,, Systran, 70 West Hubbard Street, Chicago, Illinois, 60610, (312) 321-0707.

HOSPITAL GAME FOR EST

Margaret van Naerssen, U.S. Chief of Party
Graduate School English Language Center
University of Science and Technology
Beijing, People's Republic of China

Board games can serve several purposes in the foreign language classroom: 1) they encourage verbal interaction with the focus on communication rather than form; 2) they can be used independently of a teacher (once introduced by a teacher or someone familiar with the game); 3) they can be used to convey cultural and/or other content information; 4) they can be used to reinforce reading skills; and 5) most important, they can make language practice fun.

If the game content is of high interest to the students, it is all the better. Such a game is Intern (Avalon Hill Game Company, Baltimore, Maryland 21214, USA). "The object of this game is to be the first intern in the hospital to admit, diagnose and treat all of his department's patients with the least expenditure of time." (Intern Manual, page 3) While this game is most appropriate for English students with medical backgrounds, other scientists can also find it acceptable for its scientific content and for its vocabulary/cultural orientation to hospitals.

The game is similar to Monopoly with time script replacing money; patients, medical responsibilities and hospital rooms replacing property; and paging cards replacing Chance and Community Chest cards.

The game can reinforce specific language skills: speaking (with more focus on communication the more involved students become); vocabulary development (hospital/medical domain); and reading skills using game cards as well as the rule booklet (Michael Linden-Martin suggests applying skimming skills to game rules): The vocabulary covers terms common to the departments of surgery, medicine, neurology, and gynecology. The medical problems by department include: amenorrhea, cystitis, gonorrhea, and labor and delivery (all gynecology); coma, dementia, depression, and headache (all neurology); abdominal pain, burn, fracture, and laceration (all surgery); and ascites, chest pain, hypertension, and weakness (all medicine). Eighteen different rooms, laboratories and stations common in a hospital are also used in the game.

In addition to being a device to encourage English communication, the game can be used for teaching/reinforcing medical and cultural content. The booklet of rules, Intern Manual, also includes a glossary of the terminology used, with the pronunciation and definition for each term. Diagnosis and treatment cards describe some of the symptoms and procedures. Time script has portraits of famous physicians in Western medicine along with the names and birth and death dates. The game rule manual does warn about not using the information in the game as definitive medical information as the information has been greatly simplified.

While the advantages of such a board game are obvious, there are certain problems that the teacher should be aware of. First, for those familiar with British hospital terminology, some modifications need to be made. This can be done by putting labels with the appropriate British term over the American English term. Second, the rules are a bit complex for students to learn on their own initially. At least two sessions with a teacher are necessary, but once several students learn the rules they can teach each other. Third, while involvement with the game (thus more focus on communication than on form) is highly desirable, sometimes heightened involvement can lead to playing some of the game in the students' first language: especially if the teacher is not present and students have a common first language. Fourth, students might question the validity of using a game for promoting second language performance: it might not seem like hard work, therefore, it might seem like a waste of time. And fifth, a game such as Intern would appear to have more surface validity for those in medicine than those EST students in other specialties.

Teachers need to convince students that language learning can be fun even for the most serious science scholar in an academically oriented ESP program.

BIOGRAPHICAL NOTES (continued from page 5)

STUDIES IN SECOND LANGUAGE ACQUISITION

Indiana Univeristy Linguistics Club is now publishing a journal devoted to second language acquisition. Recent contributions include writings by Widdowson, Corder, Killerman, and Valdman. For more information, write: Editor, Professor Dr. A. Valdman, Indiana University, 310 Lindley Hall, Bloomington, Indiana 47401, USA.

* * *

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ISSUE #56
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English For Specific Purposes

KATHRYN MICHAELS, EDITOR
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FROM THE EDITOR

This issue is devoted primarily to an update of the holdings in the EST Clearinghouse. From time to time we continue to receive articles to be housed in the Clearinghouse. This list includes items cataloged since the last update, August 1980, Issue 41. It also includes a new price list, with special notation made for domestic and foreign purchase.

As part of our continued goal to share information, we print the following two notices:

SEMINAR INFORMATION

Management Communication Seminars are programs for international participants in management and communication skills for development. These seminars are organized by Management-Communication Associates, Development Training Specialists. The goal is to help participants not only adapt training and ideas to local conditions, but also to deal with the stresses and adjustments of re-entry into one's community, society, and organizations. This training experience has been provided to over 20,000 participants from 96 countries. The majority of the participants have been sponsored by AID (Agency for International Development). Others have come under sponsorship of their own governments and multi-national agencies including those of the United Nations.

Below is the list of remaining dates and cities scheduled for 1981-82:

December 13-December 18, 1981	New Orleans, Louisiana
December 27-January 1, 1982	Kansas City, Missouri
December 28-January 8, 1982	Washington, D.C.

(This special 11-day seminar is conducted by MCA in cooperation with the International Training Division of the U.S. Department of Agriculture but is open for attendance to non-USDA sponsored participants as well.)

January 3-January 8, 1982	Washington, D.C.

For registration or further information contact: Robert C. Morris, Executive Director, Management-Communication Associates, P.O. Box 366, East Lansing, Michigan 48823 U.S.A., Phone: (717) 337-7507.

COURSES OF STUDY:
AMERICAN GRADUATE SCHOOL OF INTERNATIONAL MANAGEMENT

Formerly known as American Institute for Foreign Trade and later as Thunderbird Graduate School, this is a private, non-profit institution accredited by the North Central Association. Enrollment is limited to 900 students, with about 25 percent of the students being international and from about 50 different countries. AGSIM continues to be the only graduate school in the U.S. devoted exclusively to educating men and women for international careers. Three interrelated departments—World Business, International Studies and Modern Languages—offer a practical knowledge of finance, marketing, business accounting and management and provide understanding of the social, political, and cultural nature of various geographic areas of the world as well as conversational proficiency in Arabic, Japanese, Spanish, French, Portuguese, German, Chinese (Mandarin) and English as a Second Language.

Requests for further information and application forms should be addressed to: Dean of Admissions, American Graduate School of International Management, Glendale, Arizona 85306 U.S.A.

(exerpted from "1980 Graduate Placement Report" AGSIM)

BOOKS IN PRINT

The EST Clearinghouse is in its second printing of:

ENGLISH FOR SPECIFIC PURPOSES:
SCIENCE AND TECHNOLOGY

edited by
Mary Todd Trimble   Louis Trimble   Karl Drobnic

The Clearinghouse would like to remind its colleagues that sale and distribution of this landmark work is being handled by:

Heinle & Heinle Publishers, Inc.
51 Sleeper Street
Boston, Massachusetts 02210 U.S.A.

This collection of articles and observations reflects the growth of English for Specific Purposes from an isolated phenomonen to its present status as one of the major contemporary movements of the English language teaching profession. Of this book, Robert Kaplan states in the TESOL Quarterly, " . . everyone concerned with EST/EBE teaching, curriculum design, and material development should have a copy close at hand."

The book consists of 18 articles in five parts: Overview, EST and Teaching, Scientific and Technical Discourse in Other Languages, Linguistics and EST, and ESP Curriculum Development.

ENGLISH FOR SPECIFIC PURPOSES: SCIENCE AND TECHNOLOGY; Mary Todd Timble, Louis Trimble, Karl Drobnic, Editors; List Price: $12.00

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Orders will be received, shipped and billed by Heinle & Heinle Publishers, Inc. 51 Sleeper Street, Boston, Massachusetts 02210 U.S.A.

CONFERENCE REPORT

American International and the Wilton Language Center recently held a symposium focusing on the practical aspects involved in the design, implementation, and assessment of technical and vocational English language programs. Speakers included Henry Widdowson, Professor of Linguistics, Institute of Education, University of London, and Louis Trimble, Professor (Emeritus) University of Washington, Seattle, currently Director Curriculum Development with AI.

The theme was "Relationship Between Language Teaching and Subject Matter: the Practical Implications." The symposium took place in San Francisco.

The morning session was principally devoted to presentations by key speakers. Following a lunch break, there was a panel discussion on topics related to the theme of the symposium. Audience participation was encouraged.

Oxford has E.S.P.

Reading and Thinking in English
H.G. WIDDOWSON

Reading and Thinking in English is a series of four books forming a course in reading comprehension for students of English as a Foreign Language. It prepares the student for the specialist English met in textbooks, reports, and journals. The subject matter is varied, so that the student becomes accustomed to reading and thinking about specialized material without being biased toward any one discipline. The complete series takes the student from a basic level of English to a level at which authentic, unsimplified texts can be understood. The course is graded but has been designed to allow entry at any stage. The series consists of:

CONCEPTS IN USE *(near beginner)* extends students' basic knowlege of grammar and vocabulary and how they are used to express fundamental concepts. It also develops their awareness of how passages are built on combinations of these concepts.

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DISCOVERING DISCOURSE *(intermediate)* develops students' awareness of how the devices of language are used to express communicative function. It also shows how passages are built on combinations of simple functions.

DISCOURSE IN ACTION *(advanced)* extends students' knowledge of the functional organization of written English and develops their ability to handle information found in varied types of real academic discourse.

Teacher's Editions with answer keys are available for each book.

Oxford University Press
200 Madison Avenue New York, New York 10016

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Smithies, Michael. "ESP and the Papua New Guinea University of Technology" .90(d) 1.40(f)

Tinkham, Thomas. "Linguistic Analysis of a Technical Manual" .70(d) 1.05(f)

Todd Trimble, Mary. "Grammars and Grammar Textbooks" .25(d) .35(f)

Todd Trimble, Mary. "A Partially Annotated Bibliography of EST Textbooks" .45(d) .70(f)

Todd Trimble, Mary. "Publishers of Books Interesting to EST Teachers" .25(d) .35(f)

Todd Trimble, Mary. "A Short List of Scientific Dictionaries" .20(d) .30(f)

Todd Trimble, Mary. "Useful Books for (ESP) Teachers" .20(d) .30(f)

Van Naerssen, Margaret; Diana Adams-Smith, Elaine Anderson and Karen Kale. "Bibliography of ESP - Medicine" .55(d) .80(f)

Van Naerssen, Margaret M. "Relating to the Communication Concerns of Foreign Medical Colleagues" .85(d) 1.25(f)

Watanabe, Linda C. "The Rhetoric of Range Management Lectures" 3.10(d) 4.65(f)

Waters, Alan. "Report on Seminar on Teaching English for Science and Technology, King Mongkut's Institute of Technology, Thonburi Campus, Bangkok, Thailand, 30 March - 17 April 1981" 3.00(d) 4.45(f)

Waters, Alan and David Bonamy. "Methodology in Teacher Training. Report on the Second Seminar on Technical English Teaching. Bandung, Indonesia, 25 May - 12 June 1981" 1.60(d) 2.35(f)

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◆ ESP NEWSLETTER, VOLUMES I-IV, IN PRINT ◆

Announcing Volume IV ESP Newsletter

The compiled issues of the fourth year ESP Newsletter are now available as Volume IV. Articles published during the fourth year include the following selections:

Review of ESP Journal	(Issue 37)
Communicative Syllabus Design	(Issue 38)
ESP at the Crossroads	(Issue 39/40)
Bibliography Update	(Issue 41)
Adapting the "Silent Way" to an EST Context	(Issue 42)
Manpower English as a Second Language	(Issue 43)
Language in International Business: An Annotated Bibliography	(Issue 44)
Published Business English Texts for ESL Students	(Issue 44)
Technical Writing: PSI Method	(Issue 45)
A Model for Coursebook Evaluation	(Issue 46)
Special issue by Thomas Nelson & Sons	(Issue 47)
Assessment of ESP	(Issue 48)

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ESP AT UCLA

By Ho-Peng Lim

The M.A. in Teaching English as a Second Language Program at UCLA was inaugurated in 1968. Since its inauguration up to the end of 1980 a total of 240 theses in English as a Second Language (ESL) were completed. Although interest in ESP has become widespread in the past ten years, very little work in this area of ESL has been done at UCLA. A recent survey (Lim, 1981) reveals that to date only nine theses have been completed specifically in the area of ESP.

Listed below are brief descriptions of the nine theses dealing with ESP. Each entry provides the author's name, thesis title, year of completion, and name of committee chairman.

STROP, Paul John. A Study of Four English Modals in Engineering Textbooks and Implications for Material Preparation. 1970. (Chairman: Lois McIntosh)

This study provides a description of a portion of the language used in technical register. Four English modals, (can, could, will, would) selected for high frequency of occurrence, were surveyed in engineering textbooks. Their use in this register was studied in detail to determine whether foreign students studying technical subjects would need special instruction beyond that offered in regular ESL classes in order to comprehend the meanings and uses of these modals in technical textbooks.

MUENCH, Margaret Stuart. Lecture Hall English: A Description and Implications for Material Preparation. 1973. (Chairman: Lois McIntosh)

This study is an attempt to show that the language used to deliver lectures in three academic areas - engineering, science, and business - differs from the language used in social science lectures. It was found that the frequency of occurrence of many structures and expressions differed from the language used in science textbooks as well. A comparison was made between the structures and expressions which occurred most frequently in the lectures, and those which were presented in three current ESL textbooks for university students.

HAMEL, Paul Joseph. English of Science and Technology: An Overview and Textbook Evaluation. 1974. (Chairman: Clifford H. Prator)

This study is meant to serve as an overview of English for Science and Technology (EST) for researchers or for those who might find themselves in a difficult teaching situation. Half of this thesis is a descriptive study of the nature of EST, and of some of the problems that prospective teachers might find in teaching EST. The remainder is of a practical nature. It is concerned with the materials used in EST classes and the evaluation of EST textbooks.

BRANN, Lisa Mary. A Survey of the English Language Skills Needed by Foreign Graduate Students in the Life Sciences. 1976. (Chairman: Richard L. Allwright)

This thesis reports on an investigation on the English language skills needed by foreign graduate students in the Life Sciences Department at UCLA. Questionnaires containing skills needed by students and the situations in which these skills are used were sent to professors and non-native graduate students in the Life Sciences Department. The questionnaires helped to determine which of the various aspects of the skills of reading, writing, speaking, and listening were the most important for graduate students in general, and which were the most difficult for foreign students in the field.

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SOME REFLECTIONS ON ESP

By Karl Drobnic

It has been just about a year since I gave up editorship of the ESP NEWSLETTER to spend some time working with ESP on a massive scale in Peru. One of the outcomes was the rewarding and productive correspondence with Jack Ewer that resulted in the "Nine Points" issue of the Newsletter (Issue 54). Sharon Abrams and Marjorie Morray, the Chair and Associate Chair of the ESL for Foreign Students in English Speaking Countries TESOL SIG, have been working for some time to make that issue of the Newsletter the starting point for this SIG's academic presentation at TESOL Hawaii. The session will be participatory in nature and include enough time for productive small group work. One small group for each of the nine problem areas identified by Ewer will be formed. Each small group's charge will be to elaborate on its particular problem area and then, through a designated group leader, report back to the general session. Results of the session will be carried in the Newsletter.

As the SIG has asked me to act as moderator at this session, I in turn am asking you to take some time in the next few weeks to review Jack Ewer's "Nine Problem Areas in ESP" (Issue 54). I would then appreciate it if you could focus on the one or two areas that most catch your attention and send along your thoughts, lengthy or short. As they come in, I will compile them, submit them to the Newsletter as appropriate, and see that they get to the designated group leaders in time to prepare for the session. You can send them in care of the ESP NEWSLETTER.

My time in Peru impressed deeply upon me the extent to which a British-American (B-A) ESP establishment dominates the literature and textbooks of ESP. This is unfortunate since the need for ESP, in terms of numbers of students wanting ESP training, falls overwhelmingly outside British and American programs. One factor in the B-A dominance appears to be that much B-A ESP takes place in university situations where faculty are expected to produce papers and make conference presentations. There is often time and funding for such activities. People teaching outside these systems simply have a different set of working conditions. They also do not have the easy access to publishers and editors that the B-A establishment does. The opportunity for personnel exchanges between institutions within and without the B-A establishment I regard as one of the frontiers of ESP at the moment. In that regard, Oregon State and TRANSLEX Peru have recently signed expanded agreements to increase the interchange between the two institutions.

To more clearly define my perspective on this issue, let me insert that TRANSLEX is an ESP system developed by Peruvians to meet Peruvian needs. It grew and matured without the presence of British and American "experts." In total disregard for the standard ESP dictum that, "It's tough to find subject matter experts willing to teach English," TRANSLEX has numerous engineers and technicians providing language training. A further impression was the extent to which many of the published textbooks demand an elite teaching corps, or at least career professionals. Yet ESP last of all should be elitist. The demand is far too enormous: the resources far too limited. The debate about whether ESP is worthwile, or even possible, is pretty much a kitsch thing that turns nonsensical outside the B-A establishment. A better focus for our establishment energies would be on methods of delivering ESP that do not require an elite teaching corps. The short term answer lies in the materials: the contributions of Swales, Ewer and Boys in this regard in the ESP JOURNAL make recommended reading.

Also, we need to hear more from those outside the B-A establishment. To what extent, for example, is the Chinese perception that ESP is valuable because it is a more efficient use of time (learn language plus subject matter at the same time) influencing language policy there? What are the social and political factors that are contributing to the shape of language teaching learning in various areas? National pride in the post-colonial world certainly had a hand in the shift from general English to ESP in many places. There are other factors in abundance, but not much in the literature. I think, however, that I have belabored the point enough. Where we can, we should aid and encourage our colleagues outside the B-A establishment to help us enlarge our perspective.

There have been several important new developments during the past year. One is the work Patrick Carmichael and colleagues at ARAMCO are doing to standardize the ESP training given to employees in their Professional Development English Programs. These programs are housed at several institutions around the US. Within a few more months, there will be a standardized ESP curriculum for the implementing institutions to follow. To my knowledge, this is the first time a sponsoring agency in the US has devoted such time and effort to curriculum matters. The concept underlying this is perhaps the first satisfying answer to the needs assessment dilemma that has been so hard to solve. Carmichael, who did extensive work in ESP at San Diego State and was a participant at the EST Summer Institutes at Oregon State in 1978 and 1979, has been able to deal with the problem both from the point of view of an ESP specialist and a trainer: the results, when they are in final form, ought to provide a model all large-scale sponsoring agencies will be interested in. We will, hopefully, see Patrick on the 1983 TESOL agenda with a report.

Also along the lines of significant new contributions is the latest work to come from Jack Ewer and his colleagues in Chile. In preliminary form is "Formal Written and Oral Scientific English: Main Microacts (Functions/Notions) and Their Indicators (Principal Exponents)." The work deals with both lexis and grammar in very concrete terms and when finished should provide materials developers with a taxonomic base heretofore lacking. It should also prove extremely useful to teacher trainers and to graduate students looking for thesis topics. Correspondence can be addressed to Ewer at Nueva Costanera 3750; Santiago, Chile.

I am also reminded anew of the different functions the ESP NEWSLETTER and ESP JOURNAL play. On a recent trip to Washington D.C., I had a chance to spend several hours with Grace Mancill, editor of ESP JOURNAL, and share my views with her. The Newsletter is to let people know what is going on

(continued on page 5)

SOME REFLECTIONS ON ESP (continued from page 3)

in the field as it is happening, to inform people of where and how to get information, and to expose their work and projects to the profession so others can contact them and compare notes. It has always relied on the readership for advance notice about conference presentations, seminars, courses, new projects and job openings, and similar matters. News of books, publications, research in progress, and commentary on various ESP issues is welcome, as are longer and more complete responses from the readership, especially when these reponses address emerging areas of concern for the field.

The Journal, on the other hand, is the place for longer, tightly reasoned, serious commentary such as the Swales/Ewer articles on ESP textbooks, for the rigorous research such as Tarone, et al, have done on the passive in astrophysics, and for the extensive re-thinking of issues such as Chambers' article on needs analysis. In the Journal, that "stricter control by the editors" of ESP literature called for by Ewer (Issue 54) can and should be exercised . To this end, Editor Mancill has assembled an impressive group of jurors for submissions; the jurors provide contributors with extensive prepublication commentary and allow for a honing and sharpening of Journal articles.

While in Washington, I was also in attendance at an interesting but relatively unknown (to ESL people) meeting at the Center for Applied Linguistics. The meeting was the Steering Committee for a CAL project—"The Survey of the Materials Development Needs in the Uncommonly Taught Languages." Uncommonly taught languages are those other than English, French, Spanish, and German. Of interest to the ESP field is that the Department of Education representative at the meeting, Richard Thompson, revealed that the US government is on the threshold of taking an interest in Special Purpose Language Teaching in the uncommonly taught languages, especially in the area of business. To this end, up to a million dollars in research money may be made available. Dr. Leon Twarog, of the Slavic Languages and Studies Department at Ohio State, described an LSP course for business he conducted for a group of executives in Cincinnati; it sounded very similar to the way many ESP courses are conducted: a course with limited objectives and a high tolerance for error.

I also note several recent publications dealing with ESP. The June 1981 issue of "RECHERCHES ET ECHANGES" was devoted entirely to ESP. There were a wide range of contributors and submissions including articles on legal English, English for Film Direction, and ESP for Islamic School-leavers. The journal is available by subscription for 60 French francs per year. Contact the editor at ESIEE: 91 rue Falguiere; 75015 Paris, France.

Regents has several new titles. In the English for Careers series, Regents has added THE LANGUAGE OF MARKETING IN ENGLISH. Like the other books in this series, it is a reader. The format is mainly readings followed by discussion questions. Units include product planning, distribution channels, pricing, and promotion and selling among others. Another Regents entry is entitled FLUENCY SQUARES: BUSINESS AND TECHNOLOGY, a book developed in Japan. The combination of business and technology might seem somewhat odd at first note. However, many scientists and engineers do become owners of businesses or administrate various departments and sections within corporations. It is aimed primarily at intermediate level students and is better looked at than described.

Of note from ESL Publications is Charles Oliver's HOW TO TAKE STANDARDIZED TESTS, an ESP of immediate concern to many students. The book focuses on test taking strategies, and while the TOEFL is definitely in mind, it is applicable to a wide range of standardized tests. The book is impressive for the completeness with which it deals with the test taking situation.

One of the most outstanding recent publications is Newbury House's volume ENGLISH FOR ACADEMIC AND TECHNICAL PURPOSES: STUDIES IN HONOR OF LOUIS TRIMBLE. To quote from the back cover, this is "The best researched, most carefully edited ESP reference work to date - it has set a standard similar works of the future would do well to emulate." The profession owes thanks to Larry Selinker, Elaine Tarone and Victor Hanzeli for editing this book and congratulations to Rupert Ingram, publisher of the book, for taking so much time and trouble with the 16 manuscripts that comprise the volume. Louis Trimble retired last year from the U. of Washington, spending the past year in San Francisco working with American International on a large materials development project for vocational English. With the conclusion of that project, Louis and his wife Mary Todd Trimble are relocating to England. We expect to hear much more from Louis, including some textbooks in the works, and hopefully, some additions to the 67 novels he has somehow found time to publish over the years.

It is nice to be back at Oregon State and appearing in these pages again. Let the Newsletter hear from you, especially in regards to Ewer's "Nine Problem areas." We need your input and participation to make the Hawaii presentation work, and whether you will be there or not, your thoughts will find a place in the present evaluation of what has been accomplished and where our energies should now be focused.

* * *

English as a Second Language: Director, English Language Institute at Oregon State University. M.A. degree in TESL, linguistics, or closely related field; at least four years' ESL teaching experience and substantial administrative experience with ESL programs. Rank, Instructor. Deadline: March 1, 1982. Contact:

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BOOK REVIEWS

Brendan J. Carroll.
Testing Communicative Performance: An Interim Study (Pergamon Institute. 1980) 105 pp., Appendixes and Bibliography

Review by Ann M. Johns, Fulbright Teacher-Training Project, Shanghai Foreign Language Institute

Separated from European and American publishers, I was delighted to find this text on a Chinese friend's bookshelf and to spend the day examining it for answers to questions posed not only by ESP course/test designers but by clients who require statistical and chartable evidence of their trainees' progress. I was not totally disappointed.

The author states that his tasks are to ". . . establish both a case for profound unease about the bases of much current language testing and a rationale for development of principles and procedures by which we can align our measurement systems more closely with the operational role they are required to play" (p. 104). The current language testing statement is unnecessary. Those who have attempted to design a needs assessment using the Munby model (which provides the foundation for this text) or who have read Candlin, Widdowson, Morrow and others (many of whom are cited by Carroll), know that testing the four "skills" (reading, writing, listening, and speaking) separately, using the norm-referenced, discrete-point measures, is inappropriate to a communicative syllabus and its purposes.

It is the rationale for the communicative tasks/skills testing (criterion-referenced) which provides the core of this volume and is more useful. In this section, the author builds upon some of his experiences in developing and testing communicative ESP measures in the United Kingdom and abroad. It includes actual test items based on Munby's skill categories and a nine-point language band system for multiple-modes (e.g. listening-speaking) reminiscent of the FSI scale but with an emphasis upon communicative proficiencies (e.g. "Able to maintain theme of a dialogue, follow topic switches and appreciate main attitude markers." p. 134). Also included are some obvious and not so obvious suggestions for maintaining authenticity and for developing various types of test instruments (e.g. prognosis, achievement). Of practical use to those who must face clients are the visuals provided: the flow charts of which the British—and most business managers-- are so fond, graphs depicting group and individual progress, and testing tier (general, group and specific) in diagrams.

But many of the answers to the more complex testing questions are not in this volume. One questions not answered is: "How can we test the trainees' abilities to identify attitudinal tone?" Caroll notes that:

> Little progress has yet been made in developing tests of attitudinal tones or units of meaning though we are convinced that the attitudinal appropriateness of an utterance is often likely to be just as important as its linguistic correctness. (p. 33)

A second question of particular interest in a criterion-referenced system, is "How can we quantify the results of these measures?". Carroll claims that "The judgement of the success or otherwise of a language programme is not a wholly quantifiable business." (p. 84)

A third question is "How can oral testing, particularly the communicative type, be made more economical?" Carroll answers with interesting, but uneconomical suggestions: authentic and interactive settings, carefully specifiec topics, several types of interlocuter, detailed communicatively-based criteria and ratings by experienced teachers(s) (p.55). Other unanswered questions could also be mentioned.

This is an interim study, pointing out the problems of testing language use, rather than useage, and the attempts at solving these problems made by Carroll and his colleagues. It is a necessary successor to the Munby text (1978) but only a beginning. As testing for communication becomes more vital, we will need additional texts of this kind, which raise and answer questions about the complex nature of testing language which is "interactive, unpredictable, purposive, authentic, and contextualized."

SCI TECH: Reading and Writing the English of Science and Technology. Karl Drobnic, Sharon Abrams and Marjorie K. Morray. ELS Publications, Culver City, California. 1981. 132 pages.

Review by Stephen Hanchey, University of California, Santa Cruz

The book is organized to approximate a college level, academic textbook, but aimed at intermediate level ESL students (those not yet ready to attempt authentic materials). Its five units are "The Physical Sciences", "The Earth Sciences", "The Life Sciences", "Mathematics", and "Applied Science".

Each unit follows the same format, a significant feature in the often ultra-innovative world of ESP textbooks. The importance of establishing learner security is familiar to most ESL teachers. Students confused by frequent and sudden changes in learning strategies spend their time figuring out what to do rather than learning language. SCI TECH faces this problem squarely. Each unit is divided into four parts: 1) Overview; 2) History; 3) Focus; and 4) Concerns for Today. These correspond to strategems found with great frequency in college level texts - introduction of a subject, development of a subject, a focus on some particular aspect or aspects of the subject, and implications beyond the particular.

Each of the twenty lessons follows about the same mode of development. A high-interest reading with conveniently placed glossary is followed by skills based reading exercises that introduce students to discrete grammatical/rhetorical features. For a book that is not intended to be a grammar/rhetoric, a significant number of EST microacts are covered. These include using diagrams, chronology, results, causes, comparing, describing, separating fact and opinion, classifying, defining, reference, using examples, induction and deduction, and a number of others. Students are then given production practice in many of these microacts through the writing exercises that accompany each lesson. In each lesson, these move from controlled to guided to free.

Of special note is the Concerns for Today section of each unit. Having used the previous three lessons of the unit to educate the students in a particular aspect of the unit topic, the authors isolate a particular issue with wide-ranging implications for a broad spectrum of students. Thus, the physical science unit ends with a discussion of nuclear power pros and cons; the life sciences leads the class into the scientific ethics of genetic selection; applied sciences raises the issue of the hidden costs of technology transfer. Teachers who follow the careful format should find their students able to deliver informed opinions in reasonable English on a number of the scientific and international issues of our times.

A further feature of the book is the large number of objective exercises with an answer key in the back of the book. Even teachers unfamiliar with ESP should find a minimum of problems in using this book.

One wonders though, how in a book with such a carefully planned format, Pacific Northwest writers could end up placing Mt. St. Helens in Oregon and Crater Lake in Washington (page 42). The graphic design and layout are excellent throughout.

One wishes the book were longer. More exercises would lead to fuller exploitation of each unit's focus. There is, however, always a delicate balance between a premature exit and beating a subject to death. Some teachers will want to supplement SCI TECH along the way, especially in the Concerns for Today sections where excellent opportunities for library assignments abound. These sections would be greatly enhanced by a current bibliography, and teachers with appropriate facilities may even want to initiate their students into the use of their library's Reserve Room, Computer Information Retrieval System, and similar campus resources.

ESP VOCABULARY

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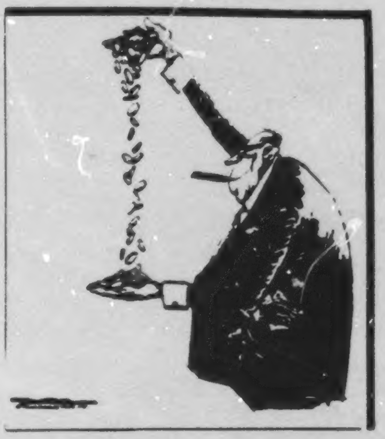

EMPLOYMENT OPPORTUNITIES

(See also pages 2 and 5)

The Intensive English as a Second Language Program of the English Department of the University of Louisville anticipates several instructor's positions for March 1, 1982, through October 30, 1982, for a Saudi Arabian contract group. These positions will be filled at the lecturer level. The salary range will be $12,000 - $13,500 per annum, depending upon qualifications and experience. Applicants must have an M.A. or its equivalent, preferably in teaching English as a second language and must show at least one year of adult ESL teaching experience exclusive of practice teaching. Familiarity with a foreign language and residence in a non-English speaking country is highly desirable. This position includes responsibilities in (1) teaching courses in the intensive English program, (2) preparing tests and evaluating results, (3) participating in curriculum development, including materials for class use, and (4) participating in professional ESL organizations. Some program administration, with compensation, may be available.

Interested and qualified persons should write at once to:

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Applicants should enclose a letter describing their experience with ESL programs and a curriculum vitae. They should also initiate a request for their placement file and transcripts to be sent to the address above. Please specify that the application is for the Saudi Arabian contract group. Deadline for applications: February 1, 1982.

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CORRECTION

This is a revision of an earlier employment advertisement about Systran which appeared in the October 1981 (#55) issue. The content of the earlier ad was not totally accurate concerning the salary and conditions of employment. We apologize for the inaccuracies and regret the inconveniences and frustrations which the earlier ad caused.

ISSUES #58/59
JANUARY/FEBRUARY, 1982

English For Specific Purposes

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FROM THE GUEST EDITOR

In recent years there has been a strong welcome trend in ESL towards more student-centered materials and methodologies. This has been reflected in ESP by a greatly increased focus on the needs of the learner.

Unfortunately, it has also become clear that the practical reality of teacher/student ratios sets a definite limit on the amount of individualization that can be achieved in a regular classroom. The result has been an upsurge of interest in methods of providing highly individualized language instruction. This special issue of the newsletter is devoted to the most practical of these methods—Computer-Assisted Instruction—and its implications for ESP.

Computer-Assisted Instruction (CAI) seem certain to develop into an important component of education in most subject areas at the elementary, secondary, college, and university levels. Educational publishers are already beginning to offer ready-to-use computerized materials ("courseware") as components of some courses. This is an appropriate moment to assess the potential impact of CAI on language instruction and particularly on ESP.

COMPUTER-ASSISTED INSTRUCTION: INDIVIDUALIZED LEARNING IN ESL/ESP

David H. Wyatt

MISCONCEPTIONS It is likely that "computer-assisted instruction" is one of the most widely misinterpreted terms in the entire field of education. The fact that computers are involved, for example, is irrelevant to the students and most of the teachers who use CAI, for the computer simply functions as a very powerful, easy-to-use learning aid. Computers in CAI are often described as "teaching machines," another rather misleading term, since good CAI materials are the opposite of machine-like.

A second serious misconception is that CAI somehow involves a completely separate and different type of course. On the contrary—CAI typically provides just one component of a regular course, offering a new approach to some parts of the homework or classwork. The balance between the CAI component and more traditional course components will vary widely. CAI may be an optional supplement to a class or an integral component affecting class grades. In some cases, however, it may provide the greater part of the instruction and practice, with teachers only monitoring the results and helping students with major difficulties.

A third source of misunderstanding is the relationship between CAI and Programmed Instruction (PI). Many teachers have had access to PI textbooks, in which small instructional steps are typically presented on one page together with a multiple-choice question on the material. Depending on your answer to the question, you are directed to turn to widely different pages where you will either continue with the next step or receive a remedial presentation based on the type of error you made. CAI is the direct theoretical offspring of PI, but only to the extent that the Rolls-Royce is a descendent of the wheel. The pedagogical capabilities, the power to attract and motivate, and the sheer fascination of well-programmed CAI materials defy comparison with PI textbooks. Unfortunately, those who are unfamiliar with CAI frequently tend to classify it as the "same sort of thing" as PI.

BENEFITS OF CAI Having discussed some of the misinterpretations, let us examine the realities of modern CAI. As Ron Feare points out elsewhere in this newsletter, individualization of instruction is one of the major advantages for ESP. One aspect of this is the way the CAI lesson adapts itself to each student. On completion of an exercise, for example, the student may be offered the chance to retake all of the items he answered wrongly the first time. Each student thus spends more time on any particular areas of difficulty for him. In contrast, very able students may finish exercises early or be routed past simpler exercises. In essence, then, each student is taking a different course uniquely adapted to his needs.

Two benefits of CAI which are closely related are the continuous active participation required and the immediate feedback on performance. It is its interactive nature that distinguishes CAI from almost all other types of educational technology, such as the language lab in which less motivated students can remain relatively passive and uninvolved. CAI materials require continuous student participation ranging from telling the computer to proceed to answering challenging questions. This is inherently motivating, as is the immediate right/wrong feedback on the student's answers. Interestingly, students welcome the direct and often humorous rejection of their wrong answers, regarding this as a challenge to demonstrate their mastery when the items are recycled.

Another aspect of individualization is that the speed of presentation is generally controlled by the student. This is of particular significance for skill areas such as reading in which students work and learn at very different speeds. In traditional reading classes, teachers must often make very unsatisfactory compromises in deciding how long to allot for reading passages and exercises, compromises which bore the abler students and frustrate the less able. There appears to be a strong argument for presenting much of our ESP reading courses through CAI.

Although there is insufficient space in this article to continue detailing its benefits, there is one further aspect of CAI that must be mentioned: its motivational properties. With their color video screens and sound capabilities, modern CAI systems possess many intrinsically motivating features. They also enable very rapid drill and practice of features which, if assigned as pen-and-paper homework, would be extremely time-consuming and demotivating. As a result, students may spend time mastering points of language which would otherwise receive scant attention.

MODERN CAI EQUIPMENT A second major reason behind the current groundswell of interest in CAI is the technological revolution which has produced inexpensive, easy-to-use, and reliable microcomputers ("personal" computers). These devices, which appear destined to continue to fall in price, have brought CAI within the reach of the majority of educational institutions. As a result, there are now two principal types of CAI system.

1. Terminal-based: The older types of CAI system operate with extremely powerful "mainframe" computers, such as the PLATO system (described in a later article), which is based on Control Data Corporation computers. In these systems, each student works at a computer terminal comprising a typewriter-like keyboard and a video unit. The terminals are entirely dependent on a mainframe computer, to which they are connected via telephone lines. All lesson materials are stored in the mainframe computer, which may be on the same campus as the terminal or several thousand miles away.

2. Microcomputer-based: The second main type of CAI system involves the use of individual microcomputers in place of terminals. In its most common configuration, each system includes the microcomputers, with a typewriter-like keyboard, a video unit, and one additional component: a disk drive. The lesson materials are usually stored on computer diskettes (approximately the size of 45 r.p.m. records) and the disk drive is required to load the programmed exercises from the diskettes into the computer. Such microcomputer systems are entirely independent, needing only a normal power supply for operation.

There are sharp differences between these two types of system, but before any comparisons are drawn one main point should be emphasized: both types are capable of providing most of the outstanding benefits of CAI.

The terminal-based systems are expensive and require considerable expertise for their installation and maintenance. It is likely that the introduction of PLATO terminals, for example, would require considerable interdepartmental planning and budgeting. Microcomputer-based systems are relatively inexpensive and require very little technical knowledge. A "learning center" of microcomputers could quite easily be established and run by an ESL department acting alone.

Terminal systems are generally more powerful than microcomputers, being capable of dispaying much more text on the video screen and providing more convenient student performance record-keeping. Other advantages include allowing student response by merely touching the screen and providing access to a large array of student aids (such as a comprehensive computerized dictionary) during exercises. However, some microcomputers have built-in features such as sound generation and color video which may not be available on many terminals.

Within the USA, therefore, the decision between the two main types of system will increasingly be a question of budget. Once teachers are convinced of the value of CAI, it becomes a matter of which system is fnancially feasible. In those parts of the world where spare parts and technical expertise are in shorter supply, however, the decision is much easier. The reason is surprising: microcomputer systems are more reliable and, being independent, the failure of one does not affect the others. With terminal systems, a failure in the mainframe computer prevents all of the terminals from operating.

Before leaving this question, two further points need explanation. First, CAI can actually be carried out on any computer system, not just mainframe and microcomputers. Intermediate-sized computers, or minicomputers, are also currently being used to provide CAI for ESL students. Secondly, the distinction between mainframe and microcomputer systems is beginning to blur. The PLATO system, for example, is now offering "terminals" which are also microcomputers, solving some of the problems of telephone connection charges and unreliability. Unfortunately, the price of the new "terminals" is still high.

COMPUTERIZED ESP/ESL COURSE MATERIALS With the mainframe-based CAI systems, a considerable amount of computerized ESL material, or courseware, is readily available. As mentioned above, the main barriers for most ESL departments are the cost of the computer system itself--the "hardware"--and the need for considerable computer expertise. With microcomputers, however, the cost of each student system (less than $2,000) is not prohibitive, and the necessary expertise can be acquired by one or two staff members at one of the intensive CAI seminars which are now being offered. Given the current upsurge of interest, what is holding us back?

The problem is the current lack of courseware in ESP/ESL for microcomputer systems. Although textbook publishers are now beginning to develop courseware, it will probably be several months before any extensive material is available. Faced with this situation, ESL departments wishing to establish CAI for ESP/ESL are developing their own computerized materials at the moment. This has been the situation at the American Language Academy (ALA), where I have been directing the development of materials for ESP and general ESL.

Our ESP course consists of a set of CAI modules (on diskettes) which are closely integrated with a new textbook, Reading Technical English. This is an upper intermediate reading skills course set in an authentic sci-tech context. The textbook is completely independent and can be used as the basis for a standard class. However, "learning centers" of Apple microcomputers have been established at all American Language Academy schools, so that within the ALA system the course includes an integral component of CAI. After completing each unit of the textbook, the corresponding unit of CAI is assigned to be completed during the next week. Students work in their own time outside regular class hours to carry out the assignments.

The CAI courseware focuses on the entire range of ESP reading skills such as the core sub-technical vocabulary, noun compounding, paragraph structure, and rhetorical functions such as definition and classification. One of the main advantages of the CAI modules in Reading Technical English is that material can be presented and re-presented on the video screen until the student has truly mastered a teaching point. Some of the CAI exercises review and practice material already covered in the textbook, while others extend the student's knowledge or teach more advanced material.

Student response to the CAI material has been excellent so far. As a result, we plan to begin the development of a similar Business/Management English CAI course in the near future.

Over 15 years ago it was predicted that computer study cubicles would "line the halls of the advanced school system" in the early '70s. Ten years later than expected, this over-optimistic prediction is finally just beginning to be fulfilled. At the present moment one of the chief difficulties is obtaining information about what is being done in the field. Rather than a list of references, then, let me end with some recommended sources of further information.

FOR FURTHER INFORMATION ON CAI FOR ESP/ESL

The Society for Microcomputer Applications in Language and Literature: Dr. Halvor Clegg, Subscriptions, MICRO, University Station, Box 7134, BYU, Provo, Utah 84602

BIPACS: 1201 Broadway, New York, NY 10001

American Language Academy: Executive Office, Catholic University of America, Washington, D.C. 20064

Pipeline Journal: Conduit, P.O. Box 388, Iowa City, Iowa 52244

PLATO: Control Data Corporation, 6003 Executive Boulevard, Rockville, Maryland

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ESL ON THE PLATO IV SYSTEM

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In the relatively new field of Computer Assisted Instruction (CAI), two fundamentally different types of computers are large, or mainframes, and small, or micros. This article describes a mainframe instructional computer, PLATO IV, in terms of its three fundamental parts: hardware, software and courseware. Some of its current developments will also be discussed.

Developed by the Computer-based Education Research Laboratory (CERL) at the University of Illinois at Urbana-Champaign (UIUC), PLATO IV was designed specifically for instructional purposes and so has long been a leader in the field of CAI. The CERL PLATO System presently operates in twenty-three states, Washington, D.C., and Sweden, the United Kingdom, South Africa, Korea and Australia, as well as in California, Delaware, Florida, Maryland and Minnesota. PLATO is a large system not only in terms of its numerous locations, but more to the point, in terms of its internal workings--its hardware.

Hardware is used to denote the computer and the physical equipment required to make it work; it's the machinery. The hardware for PLATO IV can be divided into two parts: terminals and mainframe computers.

When a student uses PLATO IV, he works at a terminal and communicates with a mainframe computer via microwave or television channels, or telephone lines. PLATO IV terminals have a black screen and orange writing. The screen is made of plasma panels and consequently detailed graphics can be produced. Like other terminals, there is an attached keyboard. PLATO IV terminals can have touch panels which allow input to be received and processed when a student touches the screen. Finally, a random access audio device optionally accompanies a terminal, allowing a student to listen to and record human voice. This last feature is certainly an asset for language teaching.

PLATO IV is not a computer itself, but rather an "operating system" that works on mainframe computers. A mainframe computer processes and stores all information in one central location and receives and sends information (input and output) to individual terminals as requested via telephone lines, for example.

This one central location consists of several pieces of equipment: there are two mainframe computers (a CYBER 6500 and a 7300), four central processors, twenty-four peripheral processors, six million sixty-bit words of extended core and other storage, and 287 million words of active disc storage. In more understandable terms, this all means that about 600 students can use the computer via their terminals at what they think is the same time.[1] Really though, a computer does only one thing at a time, it just does each operation very, very quickly. Familiarity with large computing systems will make one notice that the busier it is, the slower the computer responds. The fact that all the information on the computer is centrally located facilitates many instructional functions. These instructional functions or programs are called software.

Software consists of the computer programs and procedures (algorithms) that make a computer function in the desired way. Two kinds of software are first, the programs that exist and can be used by anyone and second, the programming language so that one can create his own programs.

The fact that PLATO IV was developed specifically for instructional purposes is reflected in the numerous Instructional Management programs available. Three types of programs used by ESL at UIUC are record keeping, routing, and sending/receiving messages.

The computer can collect and store student records in one place so that they can be examined by an instructor at a terminal, or printed out, or operated on by an analysis program. The types of information saved on UIUC ESL students have been: the amount of time a student works on PLATO, the lessons that have been completed, scores on the number of answers correct on the first try, incorrect responses, and number of tries per item.

A second type of instructional management system made use of by ESL is called a "router." A router is a program that organizes and presents the lessons a student or group of students is to work on. At UIUC, the router paces a curriculum of about fifty lessons, giving the students four lessons each week in a fourteen week semester. Other routers, such as the Indiana Manager of PLATO-Assisted Curricula (IMPAC), keep track of students' scores on pretests to determine what level they can begin at. Ideally, students can be sent to different lessons based on their scores. This arrangement allows for individualization and is called "branching."

The third instructional management feature is sending and receiving messages. A typical use by an ESL student is that he can write a message at his terminal. It is automatically sent to an ESL notesfile via central storage. An instructor can then read the note from his terminal and send a response back to the student. The next time that student works at a terminal, he receives an alert that a message has been sent to him, and he can read it by pressing a few keys.

The second software feature is the programming language. A computer language is used by a programmer to communicate to the computer what he wants it to do. PLATO IV operates using TUTOR, a computer language that was designed for writing instructional materials on PLATO and consequently is more mneumonic in its commands than other computer languages such as Basic, Fortran, Pascal, etc.

Perhaps the most important TUTOR programming feature for the educator is the ease with which material is displayed, a student's answer is judged as correct or incorrect, and appropriate feedback is given. In addition, upper and lower case letters are a standard feature, as are fine grid graphics. The screen displays are presented one page at a time and displays can be partially erased, flashed, or drawn in different sizes. The effectiveness of the TUTOR language is reflected in the courseware that can be produced through its use.

Courseware is another kind of software: "instructional software." It refers to the lessons on the computer with which the students interact. One advantage of a mainframe or large computer system such as PLATO IV is that any lesson on the entire system can be accessed by a student from his terminal if his instructor desires. Typically an instructor will select one set or combination of lessons for his students to have access to. However, central storage of lessons gives the instructor the potential for assigning supplementary work. Specifically, when UIUC ESL students finish their assigned lessons, they can continue to work on PLATO by using Rhetoric lessons intended for native English speakers. In this respect, the central storage of the mainframe is similar to a library where a student can go back to the shelf for another book, but in this case the student doesn't have to leave his seat. For ESL at UIUC alone, this "library" consists of 110 ESL lessons and many more that they can use.

In the Division of English as a Second Language at UIUC, two PLATO curricula were developed for adults and have been used by thousands of students over the past ten years. A low curriculum has been used by foreign students with little or no English, yet literate in their own languages and typically college bound. A higher level is recommended for those with some knowledge of English but without proficiency in either the receptive or production skills.

Each curriculum consists of four series: Grammar, Spelling, Dictation and either Vocabulary and Culture (low) or Reading and Comprehension (high). The two grammar series (one low level and one high level) have a total of thirty-two lessons. They are syntactically based and contain a variety of pattern practice and transformation exercises.

Next, the two spelling series have twenty-four total lessons. An audio device (like a tape recorder, but with random access) plays a prerecorded key word, repeats it in the context of a sentence, and plays it for a third time. A student can listen to this sequence as often as he wants to, but must type the item correctly before he can go on to the next item.

Twenty-four dictation lessons (again, in two series) work on much the same principle except that the student types the entire sentence. In this series a student has the choice of hearing all or part of the sentence by touching outlined areas of the screen and, he can record his own voice and compare his sentence to the model. The dictation series are grammatically controlled so that only certain syntactic structures are used in each lesson.

The twelve vocabulary and culture lessons comprise perhaps the best known ESL PLATO series. PLATO's graphic capabilities and touch panel are taken advantage of to teach contextualized vocabulary in a syntactically controlled environment. The lessons center around an American college freshman, Peter Adams, and his experiences in the dorm, going to a restaurant, opening a bank account, doing his laundary, buying a used car, and several others.

The reading series (eight lessons) has passages six paragraphs long on topics about the United States such as national parks, the highway system, American Indians, Alexander Graham Bell, Martin Luther King, and others. A student reads the paragraphs, and then answers questions on comprehension, vocabulary, restatement, and inference. This series takes advantage of another capability of the large computer by having a selected dictionary available for the students to ask for definitions of troublesome vacabulary items. Because of central storage, a definition for a vocabulary item will appear on the student's screen in what seems like no time at all.

The segment of these lessons with which the student interacts is called "the question episode." A student reads the screen and responds to a cue by either typing or touching the screen. The student's answer is then matched with the correct answer the programmer has typed into the computer. If the student's answer matches, it is judged "ok"; if not, it's judged "no." After judging, the student is often given a message as to the appropriateness of his response. The correct answer is displayed on the screen after three incorrect responses so that the student won't have to stay on the same question forever.

The number of ESL students who have been able to use PLATO IV in one semester has held constant over the years (about 200). However, the amount of time ESL students work on PLATO has steadily increased since 1974. In Spring and Fall semesters of 1974, the total number of hours 400 UIUC ESL students worked on PLATO was 2,287 for an average of 5.7 hours for each student. By 1977, the figures for the same number of students doubled with 5,537 total hours (13.8 average hours per student). In 1980, UIUC ESL students used PLATO for a total of 8,420 hours—now 21 hours per student per semester.

Although PLATO IV's use has certainly increased, it shouldn't be inferred that this system operates without difficulties. A drawback to a large computer system is that when there is a malfunction, all terminals are affected. All terminals stop working at the same time, as if someone turned off the master switch. This is called

COMPUTERS IN ESL?

For over a decade, the American Language Academy has been in the forefront of ESL/ESP instruction and innovation, with programs throughout the United States at the university, secondary, and primary school levels.

The American Language Academy is now pioneering microcomputer-based CAI – Computer-Assisted Instruction – in the field of ESL. ALA's educational software includes interactive learning modules in general and special purpose ESL to supplement existing curricula.

The American Language Academy will conduct seminars on CAI in 1982, providing opportunities for professionals in the field of ESL to learn about the operation and applications of microcomputer-based CAI. To ensure adequate individualized attention and access to computers, enrollment will be strictly limited. For more information, please write:

CAI Seminar/EJ
American Language Academy
Catholic University of America
Washington, D.C. 20064 USA
(202) 526-0300; telex 248777 ala ur

american
language
academy

"down time." From an educational point of view, down time is harmful becauses it demoralizes the students. If PLATO is down a few times in a row for a student, there is a good chance he will lose confidence in its reliability and stop using PLATO. This has occasionally occurred in the UIUC ESL PLATO program.

However, perhaps the biggest deterent to a more widespread use of PLATO IV is in its prohibitive cost. Each terminal costs about $5,500 and a subscription to access the PLATO IV software and courseware from CERL for one year costs about $3,000. The cost of telephone lines is extra.

The developers of PLATO IV have been working toward a solution of the problems of down time and cost. Seeing the advent and advantages of small microcomputers, engineers have created "microterminals" called PLATO Programmable terminals (PPT's) that are compatible with PLATO IV. The essential feature of these PLATO V and IST terminals is that there is a micro-processor in each terminal itself. This allows for information to be processed in the terminal so that it will not be affected if there is a malfunction in the main computer. It also can interact with the main computer to take advantage of central storage. When acting as a computer in itself, the PPT has the additional advantage of cutting the costs of telephone lines to the main computer which can get quite expensive. Finally, new screens are used with these terminals so that the familiar black and orange will soon give way to color PLATO.

The PLATO IV system is one example of a large educational computer system. Its extensive hardware has the tremendous advantage of central storage of large volumes of information. This advantage is reflected in the numerous software and courseware programs that are available for PLATO IV users. In the case of ESL, PLATO IV presents students with a curriculum of lessons in grammar, spelling, dictation, and either vocabulary and culture or reading. In order to keep pace with current trends, new PLATO technology looks toward keeping the advantages of a big system while adding those of the micro, thus combining the best of both worlds.

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[1] Hart, Robert. 1981. Language study and the PLATO system. Studies in Language Learning 3,1:1-24.

CAI IN EDUCATION; MICROCOMPUTERS COME OF AGE

Ronald E. Feare

In early November 1981, thirty individuals from various parts of the world, professionals in their fields, gathered on the campus of the Catholic University of America in Washington, D.C. with the common purpose of gaining professional expertise in a field new to most: computer-assisted instruction (CAI). They were enrolled in an intensive five-day seminar, offered by the American Language Academy (ALA), which had as its theme "Individualized Language Teaching Through Microcomputer-Assisted Instruction." The seminar leaders were David H. Wyatt, Director of CAI at ALA, and Nancy E. Post, Course Development Specialist in CAI.

The principal objective of the seminar was clearly stated: to provide participants with both theoretical and practical knowledge of how micocomputers can aid with all facets of education. While maintaining this general perspective, the seminar focussed more specifically on the use of CAI in English as a second language (ESL). As will be discussed later, CAI appears to offer particular advantages in the area of English for specific purposes (ESP).

The seminar was designed to combine lecture-style presentations with hands-on practical sessions. The presentations covered a wide range of topics, including: overview of CAI, its benefits and limitations; components of a CAI system; introduction to programming techniques; finding and evaluating software; and future trends and directions in CAI. In addition, each day participants had at least two hours of access to a microcomputer system to practice their new programming skills.

The importance of the seminar, one of the first of its kind, is self-evident when one considers the expanding roles which computers will serve in the future. In but a few years, all apsects of personal and professional lives will in some way be touched by computers, requiring the international youth of tomorrow to be computer literate. Thus those of us in the field of ESL, and ESP in particular, cannot allow this newest revolution to pass by unnoticed and untapped for very long.

The exploding potential of computer-assisted instruction is due primarily to recent rapid advances in microcomputer technology, permitting what previously required a large amount of electronic circuitry, space and expense to be reduced to a relatively simple, convenient, and inexpensive system. The result is an extremely powerful tool which is still far from having seen its limits reached.

But some may say there should be fear of such power, which could some day perform all human tasks more efficiently and cheaply than humans themselves are capable of. The answer in the field of education is an emphatic no. While it is true that mechanical robots can successfully replace assembly-line workers, it is indeed highly improbable that computers could ever fulfill the deeply humanistic responsibilities involved in interactive instruction as effectively as a trained professional. What they do offer, however, is invaluable assistance in the teaching process, much like the function of audiovisual equipment, but many times more powerful in application.

During the course of seminar sessions, there were several interesting discussions about the roles microcomputers could play in assisting with ESL instruction, especially in ESP. Three of the most important areas will be expanded upon.

1. Individualized language teaching—as the seminar theme suggests, CAI affords students the opportunity to study and progress through lessons of their own choosing at their own pace. This possibility is particularly useful in the case of students having difficulty keeping up with the rest of the class and needing additional time to practice the material presented in the class text

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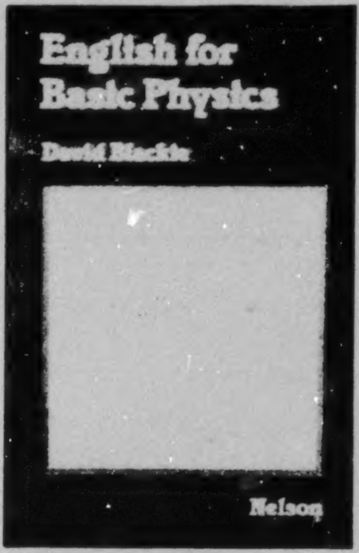

or developed by the instructor. If supplementary lessons are available through computer programs, then students can go to the learning center, where any number of systems can be at the disposal of students and spend as much time as desired on the material. Also consider the case of advanced students not being challenged enough by the regular text-based curriculum. Such students might well enjoy taking advantage of supplementary lessons designed to expand upon class material, and computers would be capable of guiding them independently.

The advantages for ESP are even greater. If an instructor is lucky enough to have a relatively homogeneous class of, say, middle-management executives, then course materials are likely to satisfy all involved. But consider cases where a few of the students come from different levels of management or, worse yet, entirely different professional backgrounds. While the majority of the class will benefit from the coursework, a minority could complain that the work simply isn't designed for their purposes. It would definitely be advantageous to have additional materials available through computer programs to deal with this kind of common occurrence.

2. Variety of skills taught—microcomputers allow a range of skills to be taught separately or simultaneously. The most obvious first skill is that of simple typing, which would require knowledge of the keyboard layout and key functions. You don't have to be a great typist to program or run a lesson, but it certainly would help. In addition, students can begin to learn basic computer skills, especially if they are able to do some elementary programming themselves. All of the language skill areas can be covered, some (reading and grammar) better than others (writing). With the aid of computer-controlled cassette recorders or voice boxes, even listening and speaking skills can be considered.

The most obvious advantage for ESP is that the strong emphasis on reading, grammar, comprehension, and vocabulary is exactly where CAI is best applied. When this fact is considered in light of the microcomputer's increasingly pervasive use in the technical fields, its incorporation in ESP appears both inevitable and indispensable.

3. Simulation of realistic situations—aside from basic drill-and-practice and tutorial lessons, computers can lead students through creative lessons which provide student control of certain variables within simulated contexts. One such program, Lemonade Stand, allows students to consider computer-designated data such as weather conditions and the cost of sugar in determining how many glasses of lemonade to make and how much to charge in order to maximize profits. Colorful graphics and sounds enhance the appeal of such programs.

In ESP, innumerable uses come to mind for business and scientific simulations of a far more sophisticated nature than the child-like (yet nonetheless fascinating) Lemonade Stand. Such advanced programs would allow students to apply principles acquired in text and class material within realistic situations requiring thoughtful decision-making. Thus theoretical concepts are made immediately relevant by practical application in contexts which students are actually likely to encounter.

The seminar proved to be a very stimulating and rewarding experience for all participants. Besides gaining a basic knowledge of computer programming and technology, every individual developed somewhat humbling insights into the vast potential of a field which in education is still striving to advance from infancy to adolescence. In order to speed this process, it is clear that many more ESL and ESP experts must become actively involved in computer-assisted instruction, for therein lies the future challenge.

A PIECE OF THE FUTURE FOR ESL

Anne I. Merkel

In this modern age where the predictions of science fiction authors seem to be coming true around us, those of us in the field of education have to move with the times and adjust accordingly our approaches to teaching.

Today students enter primary school with simple numerical calculators and handheld electronic spelling devices in their bookbags. Those at the high school level use more sophisticated calculators in their algebra classes and spend much of their leisure time competetively shooting down space invaders and other such electronic culprits. The home scene has changed to include dolls that electronically talk, games that appear on the family TV screen, computerized appliances, sophisticated burglar alarms and intercom systems, and numberous other devices. Students entering college today carry hand-held microcomputers to help with math, science, and foreign language classes, typewriters that double as word processors, and some even carry their own microcomputer terminals which can independently help in writing compositions as well as provide stimulating games. These can sometimes even be hooked into the main campus computer banks enabling students to do computer lab assignments at home.

Computers are coming of age in all areas of this society and educator should welcome them with open arms.

The idea of computers in the field of education should not be frightening. There will be no "teaching robots" in the near future. No decent teaching jobs will be taken over by the use of electronic teaching aids. Students and teachers will both benefit from learning packages that assist students in independently learning and reviewing concepts that may or may not be also covered in classtime, depending on the needs of the students and the decision of the teacher.

In the Center for English Language Training at Indiana University, computer assisted instruction (CAI) is offered through PLATO, a well established macro-system with hundreds of ESL programs. These programs are presently offered to Indiana University through the "CERL" system which is tied into the University of Illinois system. Other users of PLATO may obtain both hardware and ESL software through Control Data Corporation which presently owns the rights to PLATO.

In using computer assisted instruction at the Indiana University Center for English Language Training, it has been found that CAI can be an extremely useful and motivating supplement to classroom instruction. Indeed, it has been discovered that using PLATO for drill and practice has given teachers some advantages unobtainable in the language classroom or even in the customary language lab. Two major advantages are the instant feedback to the student and the individualization of the learning situation.

The computer, being a machine which lacks the sense of passing time, is far more patient than the teacher. It presents opportunities for the students to practice specific points over and over. Even in a relatively small class of ten to fifteen students, it is rare for a single student to be able to test his understanding of a single point more than once or twice per class meeting.

The computer moves at the student's own pace. There is no pressure on the slow plodding student to hurry, while the faster student may move quickly through a lesson without the boredom and frustration of waiting for slower classmates to respond. The quick but overconfident student is brought in touch with reality, as the machine will not continue until the student responds with the required response.

This individualization may extend into the lessons themselves: in some lessons, branching ensures that students who understand the material go directly through the lesson, while those who have difficulty are routed through additional explanation and practice.

Considering the advantage of immediate feedback, unlike the teacher, CAI lessons are incapable of ignoring a mistake or a lack of response. If an answer is incorrect, the computer says so, and refuses to move on until a correct response is given. In contrast, when comprehension is tested by homework assignments, the student must wait at least a day to discover whether his understanding was correct.

A final benefit of using CAI is efficiency. Preparing foreign language students to be able to participate fully in university classes requires that a large number and variety of areas be covered in a relatively short space of time. This pressure to cover not only the essentials but the finer areas of language in a short period causes practice to be telescoped to fit the demands of time. Computer assisted instruction provides the students with ample practice on their individual needs, while freeing class time to work on general areas of weakness and on the synthesis of discrete skills, if fully integrated and demonstrated to the students to be useful.

In order to get a measure of the value of CAI as used in the ESL programs at I.U. a survey was conducted where two separate questionnaires were developed to elicit responses from both teachers and students.

Of the 78 students questioned, only 24 percent had used computers previously, but 62 percent of the total reported that they enjoyed using CAI, and only 9 percent had trouble with the system. Forty-one percent of the students found the PLATO lessons easy to understand and 92 percent considered them to be at least a little interesting. Eighty percent of those questioned felt that CAI had helped them to "learn English," and 8 percent claimed that CAI taught them even more than their English classes! While about 12 percent of the students reported that it took too much time, and 14 percent said they didn't have enough time to finish some of the lessons, 46 percent admitted that one thing they liked most about CAI was the fact that it let them learn at their own pace. One student went so far as to comment that PLATO is a good teacher because it is "more patient" than most of his human teachers.

Ninety percent of the students responding wanted to use CAI-PLATO again the following semester. The most popular lessons, as reported by the students, were those dealing with grammar, followed by reading lessons, including specific lessons in building reading speed. The personal and sometimes humorous qualities of PLATO were mentioned often as reasons why students enjoyed using PLATO, while other popular factors included the game element of some lessons, the chance to repeat portions of lessons until they were correct, the variety of lessons offered, and the ease of using PLATO.

On the negative side, about 45 percent of the students reported that at one time or another they had not understood why an answer they had given was incorrect. Of the 78 responding students, less than 1 percent said that PLATO was boring, but usually there is a comparable percentage in any group that complains of boredom about anything and everything.

Student suggestions for the improvement of our use of CAI included offering a more thorough orientation to PLATO, supplying students with lists of the available lessons to which they could refer away from the terminal, printing out completed lessons so that students could take them home and study their mistakes, and arranging more coordination with classes.

The teachers who had used CAI all agreed that PLATO had helped their students. Grammar and vocabulary lessons were perceived by the teachers as the most useful for their students, while reading and writing lessons came next. Specific good qualities of PLATO mentioned by teachers included the element of individualization, the ability to handle discrete point problems, and the positive reinforcement offered to students when correct answers were produced. The immediate feedback, the personalized approach, and the variety of lessons also earned praise from teachers.

Teacher suggestions for improved use of CAI included assigning CAI monitors to help students when they had trouble with the lessons and generating more teacher enthusiasm by organizing training sessions in which teachers would not only be thoroughly introduced to the capabilities of PLATO and the lessons available on it, but also learn how to integrate CAI into the actual teaching curriculum.

From teachers who had instructed their students to use CAI-PLATO and who had monitored students came the following anecdotal reports:

One student in the lowest level of intensive English simply could not keep up in his classwork at first. Due to the lack of work and concentration, he simply could not make connections in class, and thus was not progressing. When he got to CAI, however, he "turned on," and was not only interested, but excited. He was the quickest of the group to understand directions and to progress in his use of PLATO. His teacher reported that his drastic change of attitude and greater achievement convinced her of the value of computer assisted instruction.

Another student, also at a low level, made a remark that is hard to forget: "I have found the perfect teacher. You say, 'Be quiet!' and 'No, that is not right!' PLATO says 'I love you Mchamed. I admire your brains.'"

Yet another student spent so many hours working on PLATO lessons during the semester that one of his teachers reported that he "had gone crazy with the computer." He completed over 50 hours of work during the semester using CAI.

An advanced lesson catalog proved popular with many of the more advanced students, who used it for more than 200 hours during the semester. Quite a number of students remarked on their questionnaires that they had appreciated being able to do lessons outside of English, in such areas as calculus, computer science, journalism, music, and typing. One student claimed that she became interested in the typing lessons because they would help her use the computer terminals more easily!

While using CAI to supplement regular language classes and language lab at the Center for English Language Training has been a positive experience, as judged both by usage and by student and teacher response, there is much to consider and learn before CAI can be used most effectively.

Before adopting CAI for an ESL program a number of points should be researched. Some language programs are located on campuses where mainframe macrocomputers are already being used in areas other than ESL. Interdepartmental cost-sharing arrangements may be worked out. Time scheduling is a major factor since mainframe systems sometimes run down during times of heaviest usage, so ESL-CAI hours should be planned accordingly. Locating terminals in spaces large enough to allow for good air circulation is one thing I.U. must work on to enhance the positive aspects of CAI there. ESL software, the actual program, is available for PLATO, but if an institute or department chooses to go with a different system some research must be done. Writing in-house programs is a good, but time-consuming idea and must be considered seriously. A more affluent ESL program may wish to hire at least one full-time CAI programmer, and it is best of this person has an ESL background to boot!

More and more heads are turning toward the use of microcomputers for educational programs, and serious research into the particular hardware and respective software packages should be made before deciding on one system over another. Small, independent language institutes that are not in any direct way connected to a large campus would definately find the more economical microcomputers to their liking over macro systems, and in addition to CAI usage, these small systems can be easily used to assimilate student office, class, and INS records, faculty records, budget matters, and many other business related items commonly found in the program administrators' offices. How nice to have all of the busy-work tucked away in a neat terminal where it won't get lost unless a memory disk is destroyed or erased.

Times are changing in ESL and teacher training programs must be made aware of this. Starting immediately all TESOL programs should advise their graduate students that CAI is available and being used in many ESL programs in the U.S. Methods courses should include chapters discussing CAI and how it can be coordinated with the general cirriculum. Some hands-on experience where possible will greatly convince new teachers of the simplicity and effectiveness of using CAI. Graduate TESOL programs with computer science departments on campus might also arrange to offer programming seminars or workshops directed toward both CAI and statistics for interested students. There are many possibilities for the future-minded teacher training programs. It is, after all, the graduates of such programs who will be most sought-after in the future of English as a second language.

While English as a Second Language is a relatively new field comparatively speaking, it is up to present educators in the field to look toward the future and to realize that today is not too soon to take a piece of the future for ESL and recognize the importance of computer assisted instruction, in addition to the use of computers for language and statistical research, and for keeping international student records.

INTRODUCING COMPUTER-ASSISTED INSTRUCTION INTO AN ESL/ESP CURRICULUM

Nancy E. Post

The pairing of computers and classroom instruction gives a myriad indications that this is no shipboard romance, but a lasting relationship of mutual complement and reward. The number of witnesses to this new-found symbiosis grows apace. Microcomputers and their instructional software (programs) are proving to fill a role not unlike that of a private tutor who assists individual students to bolster, or to expand, the information they have been given in the classroom. The computer-assisted aspect of an instructional program can be assigned as one of the requirements for successful completion of a course or it can be offered as an opportunity for further practice on a voluntary basis.

Among those who have not yet handled a computer there seems to be a frequently encountered feeling of apprehension that some great wizardry must be acquired as a prerequisite. To the contrary! It takes only ten or fifteen minutes to make the introductions. The only things which a student (or teacher) needs to do are to turn on the keyboard terminal by means of a simple on/off switch and to "log on," either by means of a special, small diskette or by typing in a few letters and numbers of special code. Once "on the system," the student is offered a choice of activities or exercises and, having chosen, he or she simply follows instructions as they are presented on the screen of the video monitor. If there is any confusion, the instructions can be repeated as often as desired. A student may proceed through any exercise as quickly or as slowly as the degree of difficulty necessitates and exercises may be repeated or not as the student determines. The average student probably spends somewhere between twenty minutes to one hour at the computer at any one time.

As soon as the student has "logged on" the computer begins to talk to and to interact with the student. The computer shows its messages on the video screen and the student types in a response, which is also displayed on the screen. Before the start of the lesson itself, the computer will ask the student for his name and perhaps some information about himself and will respond appropriately to each answer the student supplies. Upon settling down to more serious matters, the student's task for a particular session at the terminal may be to take a proficiency test, to work through a tutorial or a drill, or to pace himself through any one of a number of educational simulations or games. Depending on the nature of the instructional assignment given by the teacher, the student's scores may or may not be automatically recorded for future reference. Instructional sessions with computer-based material can be scheduled to take place before, during, or following classroom study.

In a class at the American Language Academy, for example, in which students are learning to read technical English (in the field of electronics) each unit of classroom study is followed by assigned work at the computer - vocabulary study and drill, grammar study and practice, and, in addition, a final test for that unit. In such a course plan, the students' final grades will be based on their work in class, their homework and their computer-based work - in the latter case, taking into account not only its quality but also, perhaps, its quantity.

On the other hand, use of computer-based instructional material might be offered to students as an optional choice or as directed at the discretion of the teacher. In an ESL grammar class, for example, there is computer programmed software (lessons) to provide additional practice on each of the grammatical structures studied which is available to any student who wishes to partake of some extra practice or for whom the teacher had assigned extra practice as additional help. The final (and mid-term) tests for such a class might be presented on the computer rather than on paper, or the computer might be used to test only the mastery of selected structures.

Setting up a room in which ESL/ESP students can work at the computers is not difficult. In some cases, where there is already a strong Computer Science Department, access to already existing computer terminals can be arranged. However, for many reasons, it is often preferable to establish a separate room equipped with microcomputers. Microcomputers have capabilities as great as those of any other computer but they offer, in addition, low cost, reliability, and the capability to use a wide variety of educational programs. What is needed is a room, the computers themselves (including a video terminal and a disk drive for playing the diskettes on which most lesson programs are offered), tables and chairs. The lighting should be as non-glare as possible, and for this reason otherwise unattractive basement rooms are often ideal, as they usually lack windows. Microcomputers are not heavy users of electricity and a 30 amp circuit with enough outlets (one for each system) is adequate. At each table there should be allowance for two students to share a terminal; it is often advantageous to have students work together in pairs. Because microcomputers are small, compact, and easily transported, it is essential that the room be at least securely locked at all times when it is not actually in use.

For such a relatively small investment, the benefits from computer-assisted instruction that accrue to both the students and their teachers are enormous. Besides the fact that almost anyone who interacts with a microcomputer enjoys it enthusiastically, both groups find their work immeasurably enhanced. Students experience the advantages of being able to proceed at their own individual speed; they can pace themselves and can escape having to wait while slower students learn the lesson or having to feel that, being slower, they are holding others back. They receive immediate and impartial feedback from the computer on their work, and they can review and practice as often as they wish without every trying the computer's patience. When an answer is entered, the student can see clearly what he or she has typed, and there is time to think about and consider the correctness of each answer before it is actually fed into the computer. For students who are not familiar users of the Roman alphabet, being able simply to touch the necessary letters on the keyboard makes the task of responding correctly less complex. Rather than serving as an additional distraction to learning, the computer clearly serves to focus the student's attention and to involve him almost totally - through sight, touch, and often sound - in the learning process.

Teachers, too, find there are many advantages to having computer-assisted instruction as one component of a given course of study. From the teacher's point of view it is of considerable benefit, in terms of saving both time and energy, that the computer can "work" with the student who needs quite a lot of extra practice and help - or with the student who needs to forge ahead. The teacher can make use of the computer's lessons to offer custom-tailored drill and practice as needed. Easy access to score records and uncomplicated methods for entering and maintaining class lists, grades, calculating averages and other statistical information are further boones that computers bring to the classroom teacher.

In the months since the American Language Academy first began joining its traditional classroom practice with the newer instructional techniques made possible by the microcomputer-equipped learning center, it has become very clear that the relationship between the two is advantageous to each. As more software is written and as more and more ESL/ESP teachers in programs everywhere become involved with computer-assisted instruction, its benefits will increase.

SKILLS FOR LEARNING

Skills for Learning, the outcome of the three-year University of Malaya English for Special Purposes Project, is a four-book reading skills course which aims to teach students the strategies they require in order to extract information from a wide variety of acadamic texts.

Skills for Learning
Foundation
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Progression (forthcoming)
Application (forthcoming)
Reading Projects: Science

Foundation, Development, Progression, and **Application,** are interdisciplinary in content and procedure. **Reading Projects: Science,** which may be used independently, complements the main course by familiarizing students with the particular linguistic and reading demands of their specialist discipline.

For further information and sample units, please write to:
THOMAS NELSON & SONS, ELT Marketing, Nelson House, Walton-on-Thames, Surrey KT12 5PL, England

GEORGETOWN UNIVERSITY ROUND TABLE ON LANGUAGES AND LINGUISTICS 1982

Contemporary Perceptions of Language: Interdisciplinary Dimensions

March 11-13, 1982

The program will include presentations dealing with the social context, the artistic context, and the personal context.

Pre-conference sessions will consider topics drawn from contemporary linguistic theory, cross cultural communication, and second language learning and teaching.

For more information contact: Heidi Byrnes, Chair; GURT 1982; School of Languages and Linguistics; Goergetown University; Washington, D.C. 20057

year five~subscriptions

Year 5 subscriptions will cover the period April 1981 to March 1982; prices per below. Mid-year subscriptions are backfilled to Issue 49 (April 1981).

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EST/ESP CHILE: A REVIEW

Marjorie K. Morray

By decision of its editorial committee, during 1982 the ESP Newsletter will focus on activities in English for Specific Purposes in developing nations. The timely arrival of EST/ESP Chile (July 1981) is a strong reminder of the pioneering work in ESP that has been carried out in countries of the Third World, Chile among the leaders. Edited by J.R. Ewer and Odette Boys of the University of Chile, the current issue of EST/ESP Chile contains material of significant interest to ESP professionals everywhere.

Of particular note are Ewer's editorial introducing the issue and Odette Boys's report of an investigation into job needs involving English for industry and commerce as revealed by Chilean newspaper "Help Wanted" advertisements. There is irony in the content of the two articles: whereas the latter clearly shows the large demand for English-speaking professionals (bilingual secretaries, engineers, accountants, salesmen, administrators, technicians, receptionists, etc.), the former describes changes in educational philosophy and personnel policy in Chilean universities that have had a negative effect on the training of teachers and other professionals in English for Specific Purposes. We can only hope that Chilean educators, traditionally among the foremost in Latin America, will reorient their policies in such a way as to permit professionals in ESP to continue their leadership role in that much-needed field, so important in the economies of developing countries.

Also included in EST/ESP Chile's July 1981 issue is a news item about Peru's prodigious language-teaching institute, Translex. An infant in years but growing at a mind-boggling rate, Translex has a monthly enrollment of approximately 5,000 students. Under the dynamic direction of Jaime Ponce, it emphasizes programs for students needing English for Specific Purposes.

Additional features of the issue are announcements of a colloquium on special languages and of new EST courses at the Catholic University, Santiago; book and journal reviews; and a bibliography of new materials received by the editors.

Before closing, this writer wishes to express appreciation and admiration to the staff of EST/ESP Chile for their leadership in the field of English for Specific Purposes throughout the years. May 1982 be a year of merited recognition and encouragement to them in their important contribution to ESP!

CONFERENCES AND MEETINGS

The Southeast Asian Ministers of Education Organization (SEAMEO) Regional Language Centre (RELC) will hold its 17th Regional Seminar, 19-23 April 1982, in Singapore. The theme of the seminar is "*Interlanguage Transfer Processes in Language Learning and Communication in Multilingual Societies*".

The objectives of the seminar are:

To explore the complex conditions in which translation/transfer processes occur in language learning situations and to examine their consequences for language learning;

To develop teaching and learning techniques and procedures using translation/transfer strategies as aids to increase the learner's communicative competence in his/her second language:

To review and investigate aspects and concepts of the scientific study of translation/transfer phenomena and their relevance for language teaching programmes;

To consider the cross-cultural implications of translation/transfer phenomena in language learning situations.

Further information can be obtained from the following address:

Director
(Attention: Chairman
Seminar Planning Committee)
SEAMEO Regional Language Centre
RELC Building
30 Orange Grove Road
Singapore 1025
Republic of Singapore

JALT CALL FOR PAPERS

The Japan Association of Language Teachers (JALT), an affiliate of TESOL, will sponsor the JALT INTERNATIONAL CONFERENCE ON LANGUAGE/TEACHING from October 9 to 11, 1982. The conference will be held at Tezukayama Gakuin University in Osaka. Over 900 participants are expected to attend a broad range of presentations dealing with language teaching and learning.

We welcome papers, demonstrations, and workshops concerned with teaching and learning a foreign language. Classroom instructors, curriculum designers, administrators, teacher trainers and those involved in relevant research in foreign language teaching or related disciplines are encouraged to submit proposals.

Before June 15, 1982, send the following items to the Program Coordinator at the address given below:

1) Two copies of your 200 word typewritten abstract, one with your name and contact address ON and one with your name OFF. The purpose or central idea of the proposal should be clearly stated within the text of the abstract. Commercial presentations should be clearly indicated. Immediately following the abstract, indicate the primary audience/s for whom the presentation is intended. Also, list any equipment that you will need for your presentation.

2) One copy of a 25-50 word bio-data statement.

Both items should be prepared as you would wish them to appear in the printed conference brochure. After observing these procedures, send to:

Triny Yates-Knepp
Program Coordinator
Hiyoshidai, 5-6-11
Takatsuki, Osaka 569
Japan

INTERNATIONAL SYMPOSIUM ON LSP 2-4 AUGUST 1982

The *International Symposium on LSP* (Language for Specific Purposes) will be hosted by Eindhoven University of Technology and organized by its Department of Applied Linguistics in collaboration with the Faculty of Educational Studies of the Open University (UK), the AILA LSP Commission and the UNESCO ALSED LSP Network.

The title of the symposium is *Reading for Professional Purposes in Native and Foreign Languages.* There will be discussion of various aspects of this theme, mainly taking as a basis reports of experimental research. This research conference will be held just after the Ninth World Congress on Reading organized by the International Reading Association in Dublin.

Registration will entitle participants to the services of the tourist office (VVV) who will make all arrangements for accommodation. The VVV will write directly to all those who have registered and paid, giving full details of available accommodation. As a guide, however, prices for bed and breakfast range from about f 30, - per night sharing a motel room to about f 50, - for a single motel room to f 120, - for very good class hotel.

Eindhoven celebrates the 750th anniversary of its charter in 1982 and members of the symposium may wish to spend a little more time to join in the celebration activities or simply to see more of this region of The Netherlands. The VVV will send more information on these possibilities and will be happy to help in arrangements for a longer stay.

Conference Registration rates are as follows in Dutch Guilders:

Full Participants	f 250, -
Social Participants/Students	f 120, -

The Dutch Guilder rates are definitive: payment will be accepted in any other *convertible* currency at the mean exchange plus 5 percent obtaining on the date of payment. Approximate exchange rates for your guidance are: f 10, - = FF 23 = £ 2 = $3.80 US.

Cheques etc. should be made payable to *International Symposium on LSP*, Eindhoven 1982 and sent with completed registration forms to:

Mrs. M. Buijs, Treasurer

International Symposium on LSP

Dept. of Applied Linguistics HG 8.25

Eindhoven University of Technology

P.O. Box 513

5600 MB Eindhoven

The Netherlands

(See back page for registration form)

ESP ACTIVITIES AT TESOL 1982

- "Beyond the Textbook: From Skill to Content"
  Evening Rap Session, Saturday, May 1
  4:30 - 6:00 PM, Puna Room
  Facilitator: Wendy Smith

- "Problem Areas in English for Specific Purposes"
  EFL/ESC Academic Session, Sunday, May 2
  3:30 - 5:30 PM, Waialau Room

This session will analyze the problem areas in ESP identified by Professor Jack Ewer, University of Chile, Santiago. (See Issue 54 for article.) Copies of Professor Ewer's paper will be distributed to all participants. Following a summary of his critique, the audience will break up into small groups, each of which will focus its discussion on one of Ewer's problem areas. A panel of specialists will act as moderators in the groups. Concluding the session will be reports of group deliberations presented by the moderators.

Moderator: Karl Drobnic
Areas to be examined include:
  Research: Grace Mancill
  Teacher-training: Celeste Scholz
  Sources of confusion in ESP Literature: Marjorie Morray, Phillip King
  Harmful effects of basic English; ESP as a self-contained system: Jo Ann Crandall
  Textbooks: David Wyatt, Sherry Abrams
  Evaluation procedures: Stephen G. Hanchey
  Administration: George Scholz

- "The Why, Where and How of Computer Assisted Instruction (CAI) in ESL"
  Rap Session, Tuesday, May 4
  8:00 - 9:30 PM, Historical Room
  Moderator: David Wyatt
  Participants: Carol Chapell, Joan Jamieson, Frank Otto, Anne Jackson-Mueller, Roberta Lavine

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SELMOUS/UWIST JOINT CONFERENCE
COMMUNICATION IN ENGLISH
16 - 19 September 1982

The conference will be hosted by the University of Aston in Birmingham and organized by:

- Aston's Language Studies Unit (Professor D.E. Ager, Head of Department of Modern Languages and Unit; John Swales, Head of EFL)

- The University of Wales Institute of Science and Technology Communication Studies Unit (John Kirkman, Director)

- The SELMOUS Group (Lecturers in British universities whose principal function is teaching English for Specific Purposes to overseas students; SELMOUS = Special English Language materials for overseas university students; George Blue (Southampton), SELMOUS Chairman 1981/82)

The objectives of the conference are:

- to encourage the two halves of the profession (Communication Studies and English for Specific Purposes) to explore areas of shared interest and concern

- to promote closer contact and co-operation, and

- to promote familiarity with the other's research, professional literature, and teaching materials.

The conference therefore aims to bring together teachers of ESP, and of first Language (English) Communication Skills to adult learners, both in Britain and overseas - not only in academic settings but also in industrial/business environments.

The composite conference fee will be approximately £55.00, including registration fee; three nights in student campus accommodation; meals from Thursday evening to Sunday lunch inclusive; and a bound set of conference papers. The fee for non-residents will be approximately £20.00, excluding meals which may be paid for in cash.

TRAINING OPPORTUNITIES

UCLA offers three graduate level programs related to the Teaching of English as a Second Language (TESL). All three programs are designed to develop a professional specialization in the instruction of English to students whose language or dialect is other than standard English.

The Certificate in TESL: A one-year graduate program designed for teachers who wish to develop a specialization in ESL.

The M.A. in TESL: a two-year graduate program with a focus on research related to tasks an ESL specialist might be expected to perform (program evaluation, curriculum design, materials development, language learning research, etc.)

Ph.D. in Applied Linguistics: an inter-departmental Ph.D. of the ESL Section and the Linguistics Department which offers training in four major areas: language education, language analysis, psycholinguistics and language acquisition, and language use.

For further information and brochure, write:
ENGLISH AS A SECOND LANGUAGE
Department of English
University of California, Los Angeles
Los Angeles, California 90024

* * *

TEACHING SCIENTIFIC AND TECHNICAL ENGLISH TO NON-NATIVE SPEAKERS

Sponsored by
Department of Humanities
College of Engineering
The University of Michigan

July 26 - July 30, 1982*

Principal lecturers: Thomas Huckin, Leslie Olsen, John Swales
Other lecturers: Dwight Stevenson, Alton Becker, Deborah Keller-Cohen, Larry Selinker

This intensive course is designed for teachers of foreign technical students in intermediate and advanced English or ESL courses. (Approximately 70% of all foreign students in the US pursue degrees in science and technology.)

The primary focus of the course will be on the written English of Science and Technology (EST), and particularly on:

1) Problems in Learning to Use EST Discourse
2) Functions of Important Rhetorical and Linguistic Constructions in EST Discourse
3) Methodologies for Teaching EST Discourse
4) Curriculum Design

Other topics treated will include: Theoretical Traditions for Teaching Special-Purpose English, Lecture Comprehension and Oral Presentations, Text Selection and Development of Course Materials, Testing, Using Technical Experts as Informants for EST Research, and Differences in Cultural Perspectives.

FEE—The registration fee for the course or any part of it is $400.00 per person. This fee covers tuition and all course materials, as well as a daily continental breakfast, a picnic, and other social activities. The fee is payable in advance and should accompany the application in the form of either a personal check or institutional billing instructions. Early application is recommended.

FOR FURTHER INFORMATION—contact Ms. Barbara Cox, Conference Coordinator, Department of Humanities, College of Engineering, The University of Michigan, Ann Arbor, MI 48109; telephone (313) 764-1420.

* This conference will also be offered at the Technical University of Aachen, Aachen, Germany September 6-10, 1982.

* * *

Stanford University School of Education announces the Stanford Institute for Teachers of English as a Second/Foreign Language (SITE) to be held August 1-27, 1982, on the Stanford campus. SITE provides an update on second language acquisition research and second/foreign language teaching methods and materials. It is designed for teachers of English as a second/foreign language from around the world as well as teachers of other foreign languages, teacher trainers, and students in teacher training institutions.

Faculty members are: Judith Chun, Director; Ann Fathman; Robert L. Politzer.

The Institute includes:
- two integrated intensive seminars in Educational Implications of Research in Second Language Acquisition (Chun) and Selected Topics in Second/Foreign Language Teaching Methods and Materials (Fathman);
- guest lectures by prominent scholars in the fields of second language acquisition and second/foreign language teaching;
- visits to carefully selected schools and universities around the San Francisco Bay Area exhibiting a variety of approaches to second/foreign language teaching;
- demonstrations of currently used classroom techniques by experienced teachers and specialists.

The registration fee (including seminar participation, guest lectures, school visits, and teacher demonstrations) is: $850 for applications received by May 1, 1982; $900 for applications received after May 1, 1982.

The room and board fee (including housing on the Stanford campus in student residences with shared bath facilities and three meals a day, five days a week) is: $855.50 for a single room; $747.50 for a shared double room.

APPLICATION DEADLINE is May 1, 1982. Enrollment is is limited.

For further information, including application forms, contact: Judith Chun, Director, SITE, School of Education, Stanford University, Stanford, California 94305, USA. Phone: (415) 497-2109.

ESP: AN INTENSIVE PROGRAM FOR FOREIGN TEACHING ASSISTANTS

Gregory A. Barnes
Alexis Finger

The situation has become a familiar one at American universities: Underclassmen complain that they are taught principally by teaching assistants whom they can't understand. The problem is most acute at science and technology institutions, where graduate enrollment is in many cases approaching 50 percent foreign, and the number of foreign teaching assistants increases accordingly.

Faced with this situation, Drexel University organized and ran an intensive "Program in ESL/Teacher Preparation for Foreign Graduate Assistants," from August 3 to September 11, 1982. The administrative problems encountered--late arrivals, hospitalization of a student, etc.--were extensive. Here, however, we wish to describe the curriculuar problems faced as well as the solutions we expect to implement in the 1982 program.

CURRICULUM

Our four-person staff established six goals for the program:

1. To instill a mastery of English grammar;
2. To instruct the students in correct English pronunciation, and to help them better their own pronunciation;
3. To help them improve their ability to understand spoken English;
4. To prepare them to express themselves effectively in teaching situations;
5. To prepare them to manage situations common to American life; and
6. To inform them on the customs and traditions of the United States.

Three distinct activity areas were foreseen as necessary to achieve these goals: an ESL component (3 weeks for the advanced stream, 4 for the slower stream); a teacher-training component (2 weeks each); and "cultural outings" designed to make the student comfortable in his/her new environment. The students were to meet in class 3 hours each morning, Monday through Friday.

The ESL curriculum depended principally on available printed materials, with the result that our approach was necessarily fragmented. The division of activities for the four-week course (56 contact hours, exclusive of testing and a 1-hour orientation) was as follows: grammar review, 16 hours; discussion, 10; readings on U.S. culture, 8; dialogues, 7; impromptu and extemporaneous speaking, 6; pronunciation, 3; listening comprehension, 3; role-playing, 2; and problem-solving, 1. Although we immediately recognized the need for integrated materials, we lacked the time, and perhaps, the self-confidence to prepare them for the first program.

The teacher-training segment, for the same reasons, became a separate component, with different demands. Nine hours (3 days) of instruction were planned for each stream: 4 to lesson plans, 2 to mechanics (registration procedures, etc.) and 1 each to American educational philosophy, classroom management, and nonverbal communication. The remaining 6 hours of the initial week were assigned to 10-minute lessons by the students, and the final week to two 3-5 minute lessons each on videotape, with playback and critique. (Advanced students were to spend the 6th week of the program as guinea pigs and peer critics for the slower stream.)

The third component—"cultural outings"—we established as a group of afternoon events, Monday through Thursday, with each member of the staff assuming responsibility for one afternoon per week. These outings were to consist of tours of campus facilities, meetings with university representatives, and shopping trips, as well as visits to Philadelphia's cultural centers.

MATERIALS

The lack of integrated materials meant that four different textbooks were needed for the ESL component:

Alexander, Kingbury, and Chapman, Take a Stand
Dixson, Graded Exercises in English
Hall, People Talking
Tiersky, U.S.A. Customs and Institutions

To some degree these choices reflected the fact that the university bore the cost of the texts, but they were appropriate for the curriculum as we structured it.

For the teacher-training component, we relied mainly on our collective (and, fortunately, extensive) experience to produce a small quantity of materials. A division of duties was necessary, however. The two instructors were made responsible for lesson-plan instruction, while the project director and program coordinator took on the topics of classroom management, mechanics, and nonverbal communication. Here it is appropriate to express appreciation for the support given us by the University of Minnesota ESL staff, both indirectly (through their teacher-training videotapes, now on loan through NAFSA) and directly. Mark Landa made numerous suggestions and sent along appropriate materials, so that we were able to refine our ideas continuously.

The final materials choice involved testing instruments. In view of the entirely oral nature of our assignment, we felt it necessary to conduct an interview with each student, and chose as our instrument the Ilyin Oral Interview. This test was to be complemented by two portions of the Comprehension and Grammar.

PROGRAM

It became clear in the weeks before our August 3 opening that many new teaching assistants would not arrive on time, and so the program was made available to current teaching assistants (and in one case, to a graduate student from a sister institution). Thus we began with only 5 new students to go with 13 current students. Ultimately we would have 24 students, of whom 10 were new.

These proportions caused several problems for the program. The major consequence was that the culture outings were largely a failure. This was not entirely due to the outside commitments and sophistication of the current students. Colleagues who expect to train foreign t.a.'s should know, as we know, that scientists and engineers want free time to get acquainted with their labs and machines; even new students resisted our attempts to take up their afternoons.

Some of the least successful afternoon events, unfortunately, were the reviews of the Minnesota videotapes, during the fourth week of the program. Clearly we were overtaxing our students' energy and abundant good will. It must be said, however, that these tapes seem much stronger in conception than in execution; because they are lengthy, uneven, and often difficult to understand, they should be previewed and used selectively. Other parts of the program went more smoothly. Although we have not as yet measured correlations between the Ilyin Oral and the CELT exams, they worked well heuristically: The combined scores correctly indicated whether a student should be in the advanced or the slower stream. Not unexpectedly, we found two students so advanced that grammar review would have been punishment for them; they were released during grammar class for private tutorials with the program coordinator.

At the recommendation of Minnesota colleagues, we exposed the trainees at an early point to videotaping, so that they would be less self-conscious when their time came to perform. Our own discovery was the efficacy of practice as public speakers: Even prior to videotaping sessions, these future teachers benefited considerably simply by standing before their peers and talking, on whatever subject. One late arrival, for example, was so painfully shy that she would not respond even to greetings during her first week in the program. After an impromptu speech, an extemporaneous speech, a ten-minute lesson plan in class, and two five-minute lesson plans, with critiques, in the videotaping studio, she became noticeably more self-conficent even in social situations.

During the teacher-training segment, the trainees served one another as auditors and students; our attempts to provide them a real-life teaching situation with American students proved unsuccessful. The trainees later expressed their disappointment at this loss of possible contact with Americans. They would have such contact soon enough, however (and this year we are still not sure how to persuade American students to sit in classrooms the last week in August and listen to novice teachers addressing them in halting English).

The final week of the program proved hectic. All the students were retested and evaluated, and recommendations on their teaching readiness were sent to their respective departments. At the last minute, we organized a party, a distracting but necessary activity; probably, we should have planned a party for the beginning of the program as well as for the end. Videotaping activities inherently add complexity to the syllabus—special space, special equipment, and specialized labor must all be organized--and thus our program coordinator found his role intensifying in the final two weeks, rather than abating, as we had anticipated.

RESULTS AND RECOMMENDATIONS

Both exit interviews and a follow-up survey, conducted after the participants had spent four months in Drexel classrooms, revealed an almost unanimously positive trainee response to the program. Increased self-confidence was an intangible benefit noted by all. Another intangible gain was peer friendship; several fellow trainees have become roommates.

As for individual activities in the program, the participants generally wanted somewhat less grammar study and more time for conversation. They affirmed the sessions spent on cultural studies; while recognizing the complexity of the art of teaching, they felt a great need to understand American customs (and suggested, doubtless correctly, that such an understanding would aid them in their teaching roles). They shared our enthusiasm for frequent "public speaking" performances, but pointed out that, even in small classes, they spent more than 90 percent of their time listening, less than 10 percent talking. They thought that tutorials should be added to the program, that the practice teaching sessions should have real, American students, and that the cultural outings should be reduced.

The trainees' perspectives will be helpful to us in planning our next program. The best guide, of course, will be their performance in the classroom, but the results are not all in yet; follow-up observation indicates that this performance is better than expected, and surprisingly good for a few trainees who we felt should have had deferred teaching assignments.

Meanwhile we begin planning the 1982 program with these four general conclusions in mind:

1. It is not necessary to divide ESL and teacher-training components in a program designed to make foreign teaching assistants more effective. During the 1982 program, we will implement integrated materials now being developed.

2. The most important activity in a program of this nature is the "public speaking" presentation. We expect to increase this activity in the 1982 program and add instruction in the use of audiovisual aids. Tutorials will also figure as part of this expansion. It appears that the trainees want the one-to-one contact with the teacher mainly as a means of enjoying a prolonged speech act.

3. Videotaping adds immeasurably to the evaluation--particularly self-evaluation—of teaching effectiveness. Several exposures to themselves on film may be necessary to eliminate the students' fears and self-consciousness.

4. An intensive program should not be over-intensified. Extracurricular activities cannot be programmed en toto, and parties will be more to the students' liking than obvious "learning experiences." Social activities--parties, tutorials, and (if possible) contact with American students--will largely replace cultural activities.

Finally, we conclude what we had thought all along: that six weeks is not always enought time to turn handicapped English speakers into effective teachers. We would like to hear from colleagues who know of miracles--or even good ideas—which we might implement.

REGISTRATION FORM

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FROM THE EDITOR

A continuing concern of the Newsletter has been the need for more critical examination of ESP as a discipline, as a part of ESL, and as a member of the larger field of second language acquisition. As the Newsletter begins its sixth year, it is indeed encouraging to see that growing numbers have become involved.

Slowly, research receives increasing interest. There is renewed examination into the role of Needs Analysis in the design of ESP curriculum, in particular, and in language curriculum in general Janice Yalden at Carleton University has just finished a book tentatively called Communicative Syllabus: Evolution, Design and Implementation (Pergamon, Spring 1982) which addresses Needs Analysis as part of a broader examination. M.A. Ibrahim and his colleagues at the Language Center of the University of Jordan are examining parts of Munby's Communicative Syllabus and would especially welcome information from those involved with the design, development and evaluation of language courses for Arab students. The CNP (syllabus) is also the subject of at least one graduate thesis about which we hope to share more in the near future.

Of special note is the presentation this month of the International Reading Award to Jan Ulijn of the University of Eindhoven for his research with reading in the field of ESP.

We highlight the increase with several articles. "LSP Conference" previews the very substantial program planned for the fourth annual International Symposium on Language for Specific Purposes to be held August 2-4 in Eindhoven. Finally, there is an update on new resources in the Clearinghouse.

This issue also focuses on new areas in need of closer scrutiny. As noted in the last issue, this sixth year will focus on ESP activities in developing countries, with particular inquiry into the way those countries are dealing with ESP design, as opposed to solutions brought by the B/A establishment within ESP (see Issue 57; Drobnic: "Some Reflections of ESP"). Two excerpts from the Working Papers of the Brazilian ESP project shed light on issues important to this nation-wide ESP effort.

Clearly, there is progress in resolving the Nine Problem Areas cited by Ewer in Issue 54. Much remains to be done, however.

LSP CONFERENCE HIGHLIGHTS

The International Symposium on LSP will be August 2-4 at Eindhoven University of Technology. The title of the symposium is Reading for Professional Purposes in Native and Foreign Languages. There will be discussion of various aspects of this theme, mainly taking as a basis reports of experimental research. Program presentations have been divided into three topic areas. Highlights of the planned program include:

Topic 1: Basic theory and hypothesis testing

S. Wojnicki (University of Warsaw, Poland): Reading as unique skill: linguistic and pathophysiological considerations

E. Olshtain (Tel Aviv University, Israel): Reading strategies research and its applications to material development

J.A. Foley (National University of Singapore): Procedure for developing the reading skills required for scientific and technological textbooks when instruction is not in the MT

P.D. Hauptman (University of Ottawa, Canada): L_1 and L_2 reading strategies - discourse level considerations

V.H. Bhatia (University of Aston in Birmingham, UK): Syntactic discontinuity in legislative writing and its implications for academic legal purposes

Topic 2: Linguistic analysis of tests

J. Renkema (University of Tilburg, The Netherlands): Parameters of lexical diversity

A. Graetz (Ben Gurion University of the Negev, Israel): Teaching EFL students to extract structural information from abstracts

Topic 3: Teaching materials and the LSP curriculum

A. Celani, T. Deyes, J. Holmes and M. Scott (Catholic University of Sao Paulo, Brazil): The Brazilian ESP - project achievements in practice and research

L. Drozd (Charles University, Prague, Czechoslovakia): Linguistic limitations of LSP

R.K. Singh (Indian School of Mines, Dhanbad, India): ESP: a sociolinguistic consideration

J.D. Brown (UCLA/China Exchange Program, Zhongshan University, China): A norm-referenced engineering reading test

C.P. Coad (Anaheim, USA): Comparison of two vocational English classes for limited English proficient adults enrolled in an electronics technician program

ANNOUNCING A NEW JOURNAL

READING IN A FOREIGN LANGUAGE

The Language Studies Unit, University of Aston in Birmingham, England, plans to launch this new journal in 1983, to be published twice a year - in March and September. The journal will publish articles concerning both the theory and practice of learning to read and teaching reading in a foreign or second language. Conference reports and book reviews will also be published. The language of the journal will be English.

The over-riding objective of the journal will be to make a positive and practical contribution to improvements in standards of reading in a foreign language, principally at upper secondary/tertiary levels. The thrust of the journal will therefore be in the field of Languages for Specific Purposes - including, of course, reading for academic and professional study, content field readability, etc.

An international editorial board is being formed, consisting of eminent authorities from many countries.

Interested subscribers are invited to contact the editors for further details. Contributions to the first two issues are also invited; further advice and a style sheet will be gladly supplied.

The editors are:

Ray Williams and Alexander Urquhart
Editors, *Reading in a Foreign Language*
Language Studies Unit
University of Aston in Birmingham
Gosta Green
BIRMINGHAM B4 7ET
England

ABSTRACT

A FREQUENCY ANALYSIS OF THE LEXICON FROM SELECTED COLLEGE FRESHMAN LEVEL LECTURES IN BUSINESS ADMINISTRATION, AND ITS IMPLICATIONS FOR TEACHING ENGLISH FOR SPECIAL PURPOSES

Margaret J.H. Young

The purpose of the study was to provide a list, based on frequency, of subtechnical vocabulary items which might ultimately be used as a basis for instructional materials for an ESP listening comprehension course at the freshman level for business administration majors.

An initial corpus of approximately 80,000 words was obtained from transcribing lectures from two required courses in business administration at Portland State University, at the freshman level. The recordings were transcribed, coded primarily for major morphemes, keypunched, and fed into the computer. These procedures resulted in several lists being issued, based on a coded corpus of approximately 30,000 tokens.

Five computer reports were obtained presenting the data in various formats, e.g. alphabetical or frequency order, with verbs broken down into tense, aspect, and voice, and noun plurals assimilated or not. Parts of speech were always indicated (i.e., noun, adjective, adverb, verb, -ing form, infinitive, multi-word, or undetermined). Lexical types were then assigned to general, technical, or subtechnical categories. Analysis of the reports resulted in the following: a list of subtechnical lexical types with frequencies greater than .017%; general lexical types with frequencies equal to or greater than .070%, technical lexical types with frequencies equal to or greater than .070%; a table of frequencies for verb tense and voice; a list of affixes, in order of pedagogical priority, based on the number of types affix and frequency per affix.

EDITOR'S NOTE:

The following abstract and excerpt are taken from the Working Papers collection of the National ESP Project of Brazil: Projeto Ensino de Ingles Instrumental em Universidades Brasileiras. The Project is financed jointly by the Coordenaçao de Aperfeiçoamento de Pessoal de Nivel Superior (CAPES) and by the British Council.

The first is abstracted from "Teaching and Unteaching Coping Strategies, with particular reference to reading comprehension in English for Academic Purposes", Working Papers 1 (February 1981), written by Michael Scott.

"Teaching and Unteaching Coping Strategies . . ." categorizes learner language needs into four areas of objectives: knowledge of the language, knowledge about the language, knowledge of the language in use, and strategies for coping. Michael Scott discusses the implications of each area for syllabus design in EAP reading courses and for teaching emphasis.

Of these four areas, Scott focuses on the last, strategies for coping, advocating the need to teach coping skills, and in a systematic fashion.

> "It is not good enough just to assume that learners will adopt suitable and efficient strategies for learning TL. Manifestly, many fail to learn much, which may imply that whatever strategies they have used are not effective in the context of course materials, their attitudes, and so on. The work of Laurie Thomas and Sheila Harri-Augstein at Brunel University shows that students can benefit immensely from conscious analysis of how they each learn to learn. Section 4.1 refers, then, to analysis of such as
> - what seems easy and what difficult for each student
> - confusion, clarification
> - group versus individual work
> - visual versus audio input
> - induction versus deduction
> - study habits and skills.
>
> Section 4.2 (strategies for communicating in TL) involves such as
> - swift paraphrase/definition when 'stuck' for a word
> - adequate gesture and mime
> - the use of certain 'foreigner' expressions like
>   "How do you spell it?"
>   "Have I made myself clear?"
> - practice of jumping to superordinate level instead of attempting to be too precise (ie 'flower instead of 'poinsettia') in order to maintain fluency (maybe even the use of portmanteau all-purpose words like 'whatsit' ('truc', 'machin' in French)?).
>
> Finally, section 4.3. The claim here is that hitherto students have not generally had guidance in how to read, in appropriate reading strategies for different circumstances - rather, the hope has been that as long as they knew plenty of vocabulary, structures, etc., the problem of how to read would solve itself. Nor is the problem of how to read solved simply by carrying out some scanning exercises, doing some skimming, providing pre-questions, etc. Learning appropriate reading strategies involves consciousness-raising (conscientizaçao to borrow Paulo Freire's term): students need to decide for themselves which reading strategy to adopt for which text: which speed to go at, which words to ignore, which sections to re-read with great care, which questions to ask themselves about the text, etc. Moreover, they need considerable practice with those strategies which appear to contradict what their traditional upbringing has taught them." (Page 4)

Scott also points out that some classroom techniques and activities unteach these coping strategies by creating an "interference between two teaching points so that the learning of one or both is seriously handicapped." "Unteaching," says Scott,

> relates not only to what was taught, in the sense of being chosen as a teaching point in the minds of pupils and teacher; it refers also to what was taught in effect (as contrasted with what the teacher thought she/he was teaching). This is parallel with the difference between what is said and what is meant, between illocutionary force and perlucutionary effect.

Scott further argues that

"a) this state of affairs (unteaching) could be remedied, in part by the acceptance of fuller course objectives, and in part by designing the course as a whole, and in part by taking the washback effect of 'unteaching' into account;

b) that the student should be brought into the learning process not just as a 'black box' receiver, but also as a conscious, critical, active participant."

The second is an excerpt from "What do We Mean by ESP?", Working Papers 2 (June 1981), written by John Holmes. The ideas reflect those of the National Brazilian ESP project.

What, then, do we mean by ESP?

> This has been a rather negative approach to the idea of ESP, but not, rather like a photograph we can reverse the colours to build up a picutre of what the "ESP Approach" is for the partcipant universities here on the national Brazilian ESP project. It should be clear that ESP is not a monolith, and that it does not dictate a method. Let us now make three points, which emerge from the three issues we have been examining.
>
> 5.1. ESP recognises that students' needs are one of the most important factors in designing a course. If the students need to read then there is no reason why we should not begin with reading. We are not bound by previous ideologies which reverse the order of priorities of our own students.

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5.2. ESP does not mean "specialist language" in the same sense of "engineering English" but can mean special skills and strategies rather than special vocabulary. In fact, for most of our students who are already well-trained in their specialism, vocabulary is the least of their problems. Consequently when we design an ESP course we can concentrate on facilitating and practising the specific skills and strategies which our students particularly need.

5.3. ESP recognises the student's abilities as an adult in learning a language. Hence we make use of our student's own knowledge of the world, his reasoning ability, and his linguistic background, even if this is only in his first language. We concentrate on the motives a student may have for learning English, and we try to concentrate on what a student knows rather than what he does not know. We can ask him questions such as:

> "How much of this text to you understand?"
> "How much of this text do you want to understand?"

VESL COURSE IN MACHINE TOOL AND SECRETARIAL SCIENCE

As part of its effort to meet the community's employment training needs, Waubonsee Community College has developed and field tested a vocational education program for Limited English Proficiency (LEP) students in Machine Tool and Secretarial Science, with corresponding Vocational English as a Second Language (VESL) courses. Funded by the Illinois State Board of Education/Department of Adult, Vocational and Technical Education, the Waubonsee LEP Project for Vocational Education has offered short-term, part-time training programs aimed at providing students with skills for entry-level employment, job upgrading and/or further education.

The Project is based on the premise that LEP students can be taught the same vocational content and skills as native Englsih speakers, but that in order to accomplish this, vocational materials must be adapted in format and language, and corresponding Vocational ESL courses must be offered. During 1981, a comprehensive set of vocational materials entitled Machine Shop Fundamentals was developed.

*Machine Shop Fundamentals: Part I
- Twenty-four competency based lessons
- Flexible sequence
- Abundance of technical illustrations

*Machine Shop Fundamentals: Part I
Student Workbook
- Technical Vocabulary for each lesson
- Study Questions for each lesson
- Review Questions for each lesson
- Worksheets for most lessons

*Machine Shop Fundamentals: Part I
Vocational Instructor's Manual
- Comprehensive notes and suggested teaching strategies
- Student native language supplements of Machine Shop Fundamentals: Part I in Spanish, Lao, and Vietnamese for each lesson
- A Self-Test for each lesson

*Machine Shop Fundamentals: Part I
Technical English Instructor's Manual
- Comprehensive notes and suggested teaching techniques
- Visuals for each lesson
- Semi-Technical Vocabulary for each lesson
- Technical English Worksheets for each lesson

A review of traditional machine tool vocational materials and techniques showed that they presuppose high language and academic skills which the majority of LEP students do not possess. Even the few existing materials targeted for LEP students have little usefulness because most of them are designed for the small minority who possess advanced English skills.

In a vocational program aimed at training LEP students for employment in the United States, appropriate English vocational materials are the key to the students' success in training and ultimately on the job. As demonstrated by Machine Shop Fundamentals: Part I, the necessary adaptations of format and organization of concepts, and the necessary language simplification (structures and vocabulary) can be done without diluting the technical content.

The high language and academic skills presupposed by traditional vocational textbooks present barriers to LEP students and to other special needs students. Like LEP students, many disadvantaged and handicapped students have difficulty in reading and using such traditional textbooks. The Project believes that English vocational materials which are appropriate for LEP students can also be effectively utilized by these other special needs students.

The twenty-four competency based lessons of Machine Shop Fundamentals: Part I may be used as a main textbook, as a supplementary textbook, or as the basis for a pre-vocational training course in bilingual and non-bilingual training programs. These lessons are divided into the following Units:

UNIT 1	Machine Tool Technology
UNIT 2	Safety in the Machine Shop
UNIT 3	Introduction to Machine Tools and Machine Operations
UNIT 4	Measurement
UNIT 5	Blueprint Reading
UNIT 6	Layout
UNIT 7	Bench Tools

Machine Shop Fundamentals: Part I will be available in the Spring of 1982. For further information contact: Michael G. Kelly, Project Director, Waubonsee Community College, Route 47 at Harter Road, Sugar Grove, IL 60554, (312) 466-4811, Ext. 320.

NEW

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J H ADAM

CONDITIONALS IN INSTRUCTIONS

Complex conditional instructions are one source of obscurity in many public documents, particularly in instructions, forms and regulations.

Melissa Holland and Andrew Rose, two psychologists at the Document Design Center, have been researching how people follow complex conditional instructions. Their latest findings show that instructions were easier to understand when presented as algorithms instead of as prose. They recommend algorithms because they break the logical structure of an instruction into separate steps, arranging them in a sequence that leads to an answer.

Holland and Rose recommend flowchart algorithms for the following difficult conditional instructions.

a) group categories (A and B, or not C and not D)

b) disjunctive string categories ("or") separated by commas (A, B, C, D)

c) compound negatives ("not both/and", "neither/nor").

(Excerpted from Simply Stated, 23: January 1982)

GLENN OCCUPATIONAL SCALES FOR INDOCHINESE

The Glenn Occupational Scales for Indochinese is a 63-item self-administered vocational interest and aptitude inventory designed specifically for Indochinese, age 16 and up. It can be used with clients at any stage of job exploration, even prior to job training.

The GOSI is available in Vietnamese, Lao, and Cambodian, and can be administered orally to illiterate clients. The test, developed over a year and field tested across the country, is intended to aid the job-preparation and -search process by reducing counseling time and increasing the accuracy of job placement.

Individual language versions of the text, plus 25 scoring sheets, are available for $12.50; the administration manual (in English) is $10.50 (postage not included). A specimen set, with photocopies of selected pages from the English version, is available for $1.50.

For further information contact:

Christopher Glenn
2449 S.E. Ash Street
Portland, OR 97214
(503) 236-6845

(Reprinted from Refugee Reports, Vol. III, No. 8, p. 6)

PRELITERACY ESL WORKBOOK

A workbook for preliterate Indochinese refugees, emphasizing survival vocabulary of immediate usefulness to students, has been developed by the Education Department of the International Institute of Minnesota.

The vocabulary is presented through pencil drawings grouped around the themes of personal information; classroom objects, daily activities; home and family, food and shopping; and health. Although not designed as a literacy text, reading and writing exercises have been included as supplementary exercises. The accompanying instructor's guide provides objectives and lists of basic and expanded competencies for each lesson. It also provides teaching suggestions and ideas for classroom activities.

Prepared by teachers experienced in English as a Second Language, the material can be used by teachers or volunteer tutors with groups or in individual situations.

The workbook can be purchased for $3.00 and the instructor's guide for $8.00 plus handling. For further information contact:

Ken Truitner
International Institute of Minnesota
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English For Specific Purposes

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As this issue of the ESP Newsletter was going to press, word was received from Chile that J.R. Ewer, Professor of English at the University of Chile and pioneer in the field of English for Specific Purposes, was lost while mountain-climbing in southern Chile. English language teaching throughout the world has suffered an immeasurable loss with the disappearance of this colleague, whose integrity, standards of excellence and intellectual rigor were never subject to compromise. The August issue of this newsletter will be dedicated to J.R. Ewer. Colleagues wishing to participate are urged to contact Kathryn Michaels, Editor.

TESOL HAWAII EXAMINES PROBLEM AREAS IN ESP

The academic session of the Teaching English to Foreign Students in English Speaking Countries SIG was devoted to an examination of Jack Ewer's "Nine Problem Areas in ESP." The areas were introduced and reviewed by Karl Drobnic and Odette Boys. The session then broke into small groups, and group leaders ended the session with summaries of their groups' opinions and concerns. The following is a transcript of that meeting.

Masters of Ceremonies at the Technological Feast

Karl Drobnic

The validity of ESP as a major movement within our profession is more evident today than at any time since it began to develop. If it is a matter for debate at all, it is a debate of little relevance to the real world from which our students come. Our students may debate, or more likely criticize, our ability to deliver ESP, but in this they are only asking for a fair return on their investment in time and tuition.

Our students come to us hungry for English not because their own languages lack literature or beauty or song, but because English is a language with a unique and tremendous power, the power to efficiently define and describe in a way that yields consistently predictable results. This is what science and technology does. It uses prediction to bring order to a raw and inhospitable universe. It does this with language.

See the English language as our students do, as the gateway to a vast storehouse of immediately useful knowledge. From this viewpoint the issue is not whether ESP is valid, but whether the English teacher is a sentry at the gate, barring the way, or a master of ceremonies at the technolgical feast.

Our profession exists not apart from the tides of history but a part of them. Various linguists and theoreticians, with their own vested interests to pursue, may at times forget this. But our students are acutely aware of the role of English in the emerging world order. We are a profession uniquely attuned to the great cross currents of world events, and within our ranks are many who have lived in the villages of the world's Ethiopias and Afghanastans, Haitis and Bangladeshes, and other pockets of dismal poverty. Among our students are many of the victims of the various countries' Boukassas and Idi Amins, Papa Docs and Pol Pots. The global character of our work gives us a close and personal knowledge of global events.

English is the thermometer of the aspirations of the world's four billion. It is the language of breakthrough after breakthrough in mankind's long climb up from the muck and the mud, the multi-millenia quest that is still painfully present for all too many living outside the borders of a few select countries.

To illustrate, against this backdrop of humanity's million year quest for decent, dignified living conditions, the United Nations has declared the 1980's the Decade for Clean Water. We are in the first stages of the Decade of Clean Water, and while America grapples with heart attacks, ulcers, cancer and other exotic ailments, over half of the world's hospital beds are occupied by the victims of water-born diseases. Massive funding for the projects of the Decade of Clean Water has already been appropriated by the World Bank and the aid-giving nations. But whether it is for village wells in Mauritania manatees to clear the choked waterways of Dacca, tidal powered saltwater converters for island nations, or schistosomiasis research in Egypt, the language that transmits the results, the refinements, and the capacity to replicate these projects is English.

At the end of the 19th century, the four hundred years of the great age of exploration drew to a close with the successful mapping of the north and south poles and the exploration of the last of the first class rivers and oceans. At this time, the world became a closed system geopolitically. Now, we have a change of government in Nicaragua, Central America quivers, and Russia and the United States flex their muscles and pump their iron. Compare this with an earlier time when the Great Inca, commander of an empire vaster and richer than Caesar's, fell from power, and the world barely noticed the event. Think for a moment of how many times television has brought you a world leader conducting an interview in English. Chou En Lai, Khadafi, Yassar Arafat, Begin, The Shah, Idi Amin, Indira Ghandi, the list goes on and on and on.

The point is that the closing of the world's geopolitical systems some 80 or 90 years ago created an increasingly significant side effect, and that is the emerging importance of English language teaching. No longer do tall mountains, wide rivers, or deep oceans separate one expanse of humanity from another. Messages are transmitted instantaneously around the world. Discoveries pile one upon the other. And only English at this particular point in history is equipped and capable of handling the traffic. The world recognizes this and accepts it, and so does ESP. The world wants English taught right. That's what ESP is all about.

We convene today, then, to examine Jack Ewer's 'Nine Problem Areas in ESP'. We are here not to manufacture defenses, conjure up apologies, whine or complain, or console ourselves about being an underpaid elite with a poorly funded vision. See ourselves not through the lense of self doubt advanced by a handful of contrarian theoreticians, but the way the world sees us, the way our students see us. We are a profession of the world, participants in the historical dialectic where now every action echos and re-echos from pole to pole and meridian to meridian. That we today take serious aim at improving our ability to deliver what the world values so highly is legitimate and right. For we are creating a body of knowledge from theory to application. Jack Ewer's essay on the problem areas of ESP has already been the cornerstone of a year's worth of seminars and colloquia around the world. It reaches today in this meeting a culmination that will be reported and commented upon in the literature, the conferences, and the graduate programs of the next year. So we take today one further step along a long and sometimes tentative road. And on behalf of this SIG and the FST Clearinghouse, I welcome you to the task and thank you in advance for your participation.

Jack Ewer's Nine Problem Areas Reviewed

Odette Boys

I suppose it's difficult to attempt giving a very complete overview in a short while, and all one one can do is give you the main points which are expressed in the article in case some of you during this stay here in Hawaii have been distracted by the beauties of the beach and haven't had time to read the article. There are nine problem areas identified in the paper and pointed out in roughly decreasing order of priorities, though obviously there are interconnections built up between one and the other.

The first problem area identified is the problem of lack of research in the field, and it points out that, as has been admitted by several experts in the field, there is very little regarding facts in ESP research. So Jack has pointed out quite clearly the areas in need of research and very, very clearly points out that these are two. The first one is concerned with identifying communicative concepts used in the main ESP registers which students need to be familiar with, and in identifying these communicative concepts we must try to locate the language related items which are connected with them. In other words, we must identify functions or notions, as they are commonly known, and the most common exponents of language and language related types connected with these.

The second type of research in great need of development is the carrying out of needs surveys in order to identify the exact needs students in different situations face. These needs surveys need to be carried out by the teachers themselves since it is very unlikely that any other institution or any other body can do such a thing for them. Together with carrying out these two types of research, he emphasizes the fact that these studies and results need to be made known to the rest of the world in order to avoid duplication, and therefore avoiding unnecessary effort being devoted to them when there's very little time and money available for such things. This then is very briefly his first point.

Regarding the second point, and also of great importance, is teacher training. Here there is reference made to two interrelated factors connected with teacher training. One is the types of knowledge or skills that must be given to the teacher trainees in order to make them efficient ESP practioners, and this includes giving them a knowledge of the language features of different types or varieties of English that the students will be concerned with; giving them a knowledge of how to evaluate textbooks; of how to carry out needs surveys; of ideas on different evaluation criteria; and at the same time, providing them with the necessary background knowledge of science, business and different specialties that their students would likely need to know about.

Together with this aspect of providing the necessary skills, there's a related point equally important according to what experience has shown, and that is knowing who in the establishment is to provide the training. There is obviously a need for such training but so far there is very little regarding reports in the specialized literature saying that such attempts are being made on a scale large enough to be able to have the required results.

Number three of the problem areas, which is called sources of confusion originating in the fast growing literature of ESP, is an area which I am sure will develop different views. I suppose it would be worth remembering that Jack was a very, very widely read person, had read very much in different disciplines, and obviously compared the standards of writing in this particular field with those of others. While he admitted the possibility of having low standards initially, he though that the time was now right for better quality writing in ESP and thought that certain points that had been emerging the last few years were the origin of several points of confusion. There are three or four which stand out. The first is probably the fact that we find several instances in which people overgeneralize. That is to say, we can have reports on restricted areas of EVP, say, and believe that these are immediately applicable to the whole of ESP.

We also have, and this is similar to what we encounter in other disciplines, the problem of terminology. Certain names or certain concepts have different meanings for different people. A good example is the problem of the word "needs". Another one is the meaning which is given to terms like "subject specific textbooks", which to different people mean different things.

Together with this, we have on the other hand, different names being given to the same thing. In the States I understand that people speak about manpower English, or VESL. In other countries we speak about EVP, or English for Vocational Purposes, and the truth is that we are refering to the same thing. So there is a problem of terminology.

Again, sometimes there are overrefinements in certain terms which are legitimate but which in terms of development for the field, may obscure more than clarify points, for example, the problem of "use" and "usage", and "coherence" and "cohesion". Both are valid points, but it's a matter of seeing how far they help us in clarifying issues. There is also, in terms of sources of confusion, not infrequently cases where there is very misleading reporting or vague referencing. This is something that again is noticable if you compare writings in our field with those that may happen in other fields which are more developed. That very briefly is point three.

As for point four, which I understand in the working groups will be developed together with point five, is something that we teachers are all very familiar with, and it is the concept of basic common core or general English. According to this paper, it says that there is a very harmful effect developing out of these very well known concepts to all of us teachers. Jack was always at pains in trying to get people to tell him more than once what was meant by general English, common core English, or basic English, and he went into great studies into [illegible] to find out if any research study done to date has managed to establish what common core English, basic English, or general English consisted of. And his answer was very impressive: no, nobody has managed to establish so far what this consists of.

This, however, has had a very bad effect upon ESP. The fact that we all believe in the existence of general English or common core or basic English has meant that in ESP, we very often believe that general English should proceed, in terms of language instruction, what should come next as an ESP option.

Together with this is the belief that whenever we are teaching a subject, we need just one textbook. The truth is that the more you learn about different needs of students, and there's a wide, wide range for most students, it seems so very unlikely that just one textbook will be able to deal with all the needs of our students. So it seems that the policy of the future should be for us to attempt to have more than one textbook.

This brings us to the sixth problem area, and that is the deficiencies in the present ESP textbooks. As a result of an analysis into a fairly representative number of ESP textbooks, we found out quite a few interesting points about these. The first feature was the fact that all the textbooks examined, with the exception of one or perhaps two, made no reference at all to any language research that had been carried out prior to their production, nor was any reference made to having used existing research. This had a bad effect on determining the language content that went into the textbooks, and although most of these claimed that they were teaching the languages of ESP, in point of fact, few of them were actually doing that, probably as a result of not having consulted research or not having undertaken any research prior to that.

There are other problems, and quite serious ones, which are also concerned with the EST textbooks, and probably with other ESP textbooks in general, but one would not dare say that at the moment because the analysis has not been done. But we can point to things like having inadequate explanations, very few exercises, and very few illustrations in terms of illustrating a point. All of these things came up in the analysis of the textbooks, and they applied to all the textbooks to a larger or less extent. Another thing that was very, very clear from the analysis, was that most textbooks were deficient in the number of supplementary aids that they provided for teachers and students, things like glossaries, teacher's notes, or suggestions for extra exercises.

Then there are other things as well, in which I suppose the publishers have something to say, and that is the fact that it seems that the size of textbooks or the length or number of pages is diminishing. We made a comparison of textbooks published in the late sixties and those of the late seventies, and in most cases the more recent ones are much shorter, and coupled to the fact that they are much shorter, there's much more space devoted to visuals and sometimes to blank spaces. I remember that in one of the textbooks that we analyzed practically 30 percent of the space was blank. So that is very briefly what would be our sixth problem area.

For number seven, which is difficult to understand when we are in an English speaking country, is the general inappropriateness for the rest of the world of materials and methods which are developed for ESP in English speaking countries. Just to point one example, this morning Jody Crandall was referring to different types of materials for adult VESL in the States, and she gave an illustration of about six different types of programs that you have here. If we think of those six types, none of them are applicable to non-English speaking countries.

Yet the impression is that it's the English speaking countries which carry the bulk of the ESP students when in point of fact, it is the other way around. Most ESP work and EST work is done outside English speaking countries, and the great contradiction is that most materials and methods are developed in English speaking countries. One could elaborate at length, giving examples of what EST students have when they come to you people in an English speaking country, for they are mainly graduates, whereas in underdeveloped countries, we deal with students who are undergraduates and who need to be given the language from the very beginning, the language of EST, or of the different registers of ESP.

Problem area number eight is concerned with the lack of realistic evaluation procedures. In this, there are two sides to the problem. One says that there is a need for us to test our students on the performance of real life tasks involving the use of English, which the training program is supposed to be enabling them to deal with, rather than testing our students on the contents of textbooks. We as a rule test versus the textbook when in point of fact we should be testing against real life tasks. And if we are testing on the second type, that is to say real life tasks, it is also important for the teachers to have a criteria of flexibility. That is to say there are different standards that we are aiming at if we have a bi-lingual secretary or a telephone operator, and a scientist speaking to a scientist. Whereas in the first case we want perfection, in the second case two scientists speaking to one another may very well understand each other even if there are errors. So it is important to have this criteria of flexibility in mind.

Lastly, as a ninth problem, which does not mean it is last in importance, though there is very little in the literature which refers to this point, we are concerned with aspects of administration and status. I think that all of us teachers feel that we haven't gotten the status we'd like to have, that that there are things that we would like to have changed. The point that Jack makes in this article is that if the other problems were sorted out first, then as a result, we would probably have more success and, consequently, our status would be raised. I think that the last words there regarding success are very meaningful when he points out that success cannot be self-proclaimed. It's something that must be seen to have been achieved, and that is something that we should aim at. Very, very briefly then, these are the nine problem areas in ESP as Jack saw them. It's important to point out, however, that he was very careful to admit that other problem areas may coexist, and it was difficult for him, or just one person, to see all of them. So it wouldn't be at all surprising if in our discussions later this afternoon new problem areas are identified. And in finishing, I'd like to say that this paper was written by someone who had been in the field of ESP right from the very beginnings, that is to say the early '60s or late '50s, who worked in it and for it with a great degree of scholarship, which is remarkable and worth emulating, especially if you remember that Jack was a self-trained ESP expert. He never had a degree as a teacher or a TESL degree. "Nine Problem Areas" was written in the belief, and in this I would like to join with Karl, that through a joint effort, and that means through all of us here, the much needed reassessment that the ESP Newsletter has been calling for could be attempted. And I suppose it would be legitimate to ask that we attempt to do such work in our groups, which are going to be organized shortly, if only as a small tribute to his memory, for he tried very hard for ESP to become a respectable discipline of ELT. For the benefit of our students and for our satisfaction as teachers, let us make his wish come true.

* * * * *

Group leaders were then introduced, and the session broke into small groups for 30 minutes. Group leaders were:

Grace Mancill	Research
Philip King and Marjorie Morray	Sources of Confusion
JoAnn Crandall	Harmful Effects of "General" English
Steve Hanchey	Evaluation
Celeste Scholz	Teacher Training
George Scholz	Administration
David Wyatt	Textbooks

The session reconvened. Each group leader had five minutes to report the conclusions and opinions of the small groups.

Grace Mancill - Research

We had three main conclusions in our group. The first one was that there is a need for a survey of the current state of research into ESP registers. Some partial surveys exist, but so far as we can tell there has been appallingly little research into ESP registers. The results of this survey should be published with at least a brief abstract of each of the research projects, and one would hope also that it would be possible to establish a bank of data, possibly founded on the existing EST Clearinghouse. A second conclusion was the possibility of establishing what might be called threshold ESP. There already exists now, although it is not yet in published form, an inventory of communicative functions in EST compiled by Ewer and Boys as a result of a several-year long project. That draws upon three kinds of materials basically: textbooks, both graduate and undergraduate; lectures, both graduate and undergraduate; and professional articles. The fields that were examined were very broadly ESP physical sciences, natural sciences, social sciences, and they could be used as a base. The next logical step is to expand into history and art to get what might be a very broadly defined English for Academic Purposes. The third area which we discussed was a different kind of research. Instead of research into registers, research into processing strategies is suggested, with special emphasis on the kinds of difficulties that second language readers have in processing scientific or academic texts. Those were the three areas that we covered.

Philip King - Sources of Confusion

We were a very small group. We discussed quite a number of things, some of which have to do with sources of confusion. We had the following reflections on the sources of confusion. First of all, the field of activities that go under the general title of ESP is so varied that there may be very little in common between the different things that are going on at the extremes if you care to arrange them along a sort of spectrum. Beyond this, a lot of people who are working in ESP as teachers probably have a fairly limited range of experience. They tend to get into one area or one job or one place, and work with particular types of of courses, to the exclusion of the other types of courses. Thus, in terms of confusion and perhaps overgeneralization, a term like EST will mean different things to different people. In most Latin American situations, and many people have been working there for years, you will tend to think of tertiary level reading comprehension courses. If you are working in an English speaking country, and I think Odette's distinction between the English speaking and non-English speaking countries is probably one of the basic ones, then it will probably refer to a much wider range of activities, to say nothing of all the other variables.

We think also that this issue of confusion is not unrelated to the teacher training issue. The people who are confused are the present instructors of future teachers in the field of ESP, and if within the framework of the teacher training activities, however formally or informally organized, there was more attention paid to critical reading and discussion, then some of this confusion might be cleared up. It may also be relevant that a whole lot of teachers tend to take their lead from published authorities, although the published authorities may be speaking at a general level from other kinds of experience and may not actually have anything to say which is applicable to teachers in those particular circumstances. That was what we had to say on the sources of confusion. There were other aspects of it which we could have addressed ourselves to, but that would need a lot more than 30 minutes.

Steve Hanchey - Evaluation

In our small group we discussed the topic of evaluation procedures in ESP, and we didn't reach any general conclusions about the subject of evaluations. I called to the group's attention the fact that in looking at the research or any writing at all that's been done in this area, it's predominately in the area of program evaluation. I think Ron McKay has said just about everything that can be be said about evaluation of ESP programs, and I call to your attention his paper presentation on Tuesday morning, "Comprehensive ESL Program Evaluation". He and many other people have talked about accountability, which is very important for those of us who are working with client-sponsored ESP programs, and corporate-sponsored specifically. They have certain expectations of the contracting institutions, and they've done some program evaluation which should be related to a needs assessment of what their trainees are supposed to do once they get on the job. The reality of it, however, is that very often the needs assessments are very perfunctory and so, we agreed that there should be a sharp distinction between program evaluation and evaluation or assessment of learner proficiency or progress.

Here again the reality of the situation is that the TOEFL is probably the instrument most widely used to measure trainee progress, even in ESP programs. This probably is due to the fact that it is the only standardized test that is generally acceptable and well known to contracting institutions. We didn't get into a discussion in our group of some of the other ones like the ELPDU, the English Language Teaching Development Unit, the Scale of Proficiency, and the FSI work that is being done by UCLA and other people to try to use a broader scale of individual trainee efficiency assessment.

The general conclusions that we came to, however, were that evaluations of learners in programs like these must be task oriented, and they must be based on an accurate needs assessment of the professional needs of the trainees that you are working with. We went further than that to say that task oriented objectives are not all that you need. You also need to specify at the same time how the evaluation of progress towards those objectives is going to be carried out. You could get into a long discussion of that, but there is a big difference between general goals of a program and specific learner or task oriented objectives. In the area of testing, as I said, we are asked to give our trainees the TOEFL test every three months, and the corporate sponsor really looks at that to see what kind of progress we are making.

I believe that learner self-evaluations for high level students, like the ones that we have, TOEFL of 550 say, in our ESP program, can be very useful too, and I base those on what I perceive to be the original needs assessment. The one thing that we all agreed upon in terms of evaluation of learner progress is that the most realistic evaluation would be follow-up evaluation of the employee on the job six months later. For example, in our program, the trainees stay nine months, so I would love to go to the country they are working in and work with their supervisors to find out how they're doing on the job. Many reasons have been given to me as to why that is not done very often: employee turnover, supervisor rotations, a variety of things, but I think we agreed at least that that is one a area that needs to be looked at more carefully, since the only really accurate assessment of whether the trainee has been successful in your program is if they can actually use what they learned on the job. But the variables in that are enormous. So many things go into it other than what they learned during the program that it's very hard to evaluate. I imagine Jody Crandall would have a lot to say about evaluations of people on the job since that's an area that she has covered very thoroughly. I think that just about covers the areas we talked about, and I'm sorry that we didn't reach any conclusions either, but the areas that I mentioned are areas that we all hope to look into in more detail later.

Karl Drobnic - Comment

It was not necessary to reach conclusions, but to provide further definition and further direction.

Celeste Scholz - Teacher Training

Our group discussed teacher training in ESP, and we didn't come up with any conclusions, either. We did have several observations in certain areas. We talked a little bit about the profile or different qualities or characteristics that certain teachers have when they find themselves beginning to teach ESP. We have teachers who have a lot of EFL teaching experience, who have TEFL training; we have teachers who have no training at all who are native speakers, or who are non-native speakers; we have teachers who teach English in ESP programs who have a very specific interest in the subject specialty. We also have teachers that have had a lot of ESP teaching experience, others who have none. We have characteristics of teachers of various aspects.

After talking about that, we came up with a couple of observations. We know that in the universities in the United States there are several ESP courses that generally focus on the theoretical aspects of ESP, and it was observed that there seems to be a lack of practice, actual application, of this theory to actual teaching situations. Thus, although teachers had this ESP training, they still felt unable to write materials for specific kinds of students or to develop curriculum when asked to do that.

A question was also raised as to whether there are specific teaching methods for ESP. We came up with the fact that while methods from EFL are applicable in the ESP situation, they probably need to be reoriented, readapted for a different kind of student, perhaps with very specific needs. The teachers without ESP experience should be encouraged to use their EFL experience, their EFL training, in these new kinds of contacts. It is very important that they should be told that they have the basics. They have the experience. They have the methodology. They can do it, so they shouldn't have that fear of the unknown. The fear happens when they talk about the area of the science content, what to do about that.

Basically, what it boiled down to was that the teacher should have a general interest in science itself, that whereas the knowledge would never be able to be at the level of the students', they should be interested in finding out what that student knows and developing the language aspects of that student's knowledge. As a concluding remark, just when we were supposed to be summing up, we were saying that it seems in many places, especially outside of the United States that the major problem is not ESP teacher training but teacher training. I can remember reading a specific quote by Joan Morely who said that of the teachers who teach EFL in the United States, only 30 percent of them have had a course in EFL methodology. That is a very small, small amount. Abroad I would say it is probably less, much less, so that the issue becomes not ESP teacher training but teacher training.

Jody Crandall - Harmful Effects of "General" English

We began by trying to identify the monster called general English and decided that it was really an artifact left over from about the 1940s in which people looked at language as some kind of a thing that could be cut up into discrete parts and could be taught in stages so that eventually, just as one acquired physics or biology, one acquired an entire language. The unfortunate effect of this has been that we still believe there is some kind of a natural sequencing. Actually, it is an artificial sequencing, a sequencing based on a contrastive analysis of two languages but which has turned out to be a sequencing that is followed by textbook after textbook regardless of the lack of research or support for it.

As we talked about the whole concept of general English, it occurred to one of us that probably none of us really has ever taught general English, that we wouldn't know how to teach it, in fact couldn't. In, fact, with our classes, we carefully from the beginning begin making our classes much more relevant to meet learner needs. An example that was given was when I'm teaching writing, even at the beginning levels, I'm always clearly aiming at a university classroom. What I'm working toward is expository prose, because it's expository prose that they're going to have to use in the classroom after they leave my class. In other words, the whole notion of teaching English writing at that point has already become somewhat specialized.

It also occurred to us that it may well be that our students don't allow us to teach general English. In fact, what happens is student demands are such that they will take a lesson which may be a general ESL lesson, and the one that came to mind, was interesting, because it came to mind to two of us simultaneously. The lesson is "At the Zoo". We've all seen that lesson of going to the zoo and talking to the animals in the cages. It wouldn't matter if that lesson were given to a variety of classes in a variety of contexts, the students would, in fact, turn that around and make it into something which met their communicative needs. Students help us to make general English more special. We tried to identify what ESP is, what is specialized English, and really determined that it is an attention to learner needs, or the learners forcing us to pay attention to their needs. It's treating people as adults, treating people as having some kind of control over their own destiny. It is a question of content in that clearly it must be content relevant for, in order to be appropriate, it must be relevant.

We're not sure what this does with beginning English. This is the real bear that I don't think we solved. I'd like to tell you we had some great conclusions, but we don't. It doesn't seem to matter what place we're teaching, we cannot at the earliest stages identify for all of our learners where they are going to be using English, and in fact even if we could identify it, we certainly don't have the means to be able to specialize all of the courses that we would need to provide. So I think what we ended up saying was that would be ideal, but in the real world it's probably not going to happen for some time and as a result we may have to rely upon our students' demands, on our students' abilities to turn that instruction around and make it relevant to them. And what we'll end up with then is, in fact, an array of specialized Englishes.

George Scholz - Administration

Thank you. I'll try to make my remarks brief. I guess for administrators, or all of us having some experience with trying to work with other people, we're probably very far from the question of how do I drive this fair chariot of ESP. Instead the question becomes, "How do I get my nine horses to agree to go in one direction?" I guess that many times those of us who have had some experience as administrators realize that occasionally the buck does stop here.

Briefly, our group discussed qualities of an administrator, and then later we went into a very brief diagram attempting, as Karl pointed out, definition and direction. First, the requirements of an administrator. Jack Ewer pointed out that an administrator needs the mental toughening up necessary to administrate. This is not intended to sound harsh but just basically an experiential factor. Administration is eclectic just as many teaching methods are, as teaching English is. Our group talked about the necessity for integrity of character and consistency. The next point was a systematic approach to the program.

The difficulties talked about as resulting from administrative problems and lack of status where this was a result of lack of research, teacher training, curriculum development, and so forth, lead us to a paradox. Let's briefly try to look at this and see what happens in the situation. You have your general parent ESL group by and large. From an administrative viewpoint, your ESL group would be your main program. You then go most likely, to your ESP administrative unit of some kind. Now, from here we go into short term and long term contracts, short term ranging from three months to nine months, long term ranging one year plus. This is probably what Sinclair has called your creative phase, especially in short term in the sense that your creativeness is a euphoria—"Hey let's all get together and get these 25 Afghani firemen on the road."

However, this does not lead to what we would call institutionalization of a program or an idea or a concept as has been discussed in the Newsletter, but your institutionalization followed by your dissemination. The institutionalization area is the area where you can start beginning to develop your teacher training, your curriculum, your research, as a stable group. It leads to a more developed aspect leading to administrative ESP in general. Short-term wise it is possible, in terms of research, but the research cues have to be developed, the teacher training will probably have to be off-line rather than on-line, and so forth.

Basically, when we talk about leadership at this level, there are two kinds of leadership, again administratively speaking, external and internal. Internal would be dealing with your program and curriculum, teacher training, and so forth. Internally, what our group talked about and really agreed to and found very effective, was collectivized administration, working with everybody. We're all in the same boat, we all have a short term contract to fulfill, and it's intensive as well as long term. But externally, your representation, your dealings with your client, your customer or with your publisher, or what have you, is usually a one-titled respresentative, be he head administrator, task force division leader, who knows, but this would be your titled representative for external dealings. But your internal one is your critical issue in administration. This is also important for, possibly, your lack of status in the program, especially when you're dealing with business concerns. The same would hold, too, between internal and external. But the paradox is this lack of development in teacher training, curriculum and so forth, which may rest on the fact that in a short term contract, it is to the benefit of the customer, who wants his students to learn English in 25 weeks, to get those students ready and rolling. Therefore the other areas may or may not be built into your budget. Finally our group attempted to explore status and basically came to the idea or the direction that the problem with status lies in accountability. And with accountability comes administration as well as very fine teachers.

David Wyatt - Textbooks

In terms of the textbook problem in ESP we had similar problems in reaching any kind of consensus, and in fact, I think our group was a perfect little microcosm of why it's so difficult to come up with any of these grand sweeping solutions about ESP that we'd all like. I think it was very obvious that we were speaking from points of view that had been achieved through age and wisdom and different experiences, different situations, different groups and levels of students. You really can't expect a consensus when you're talking about people coming from so many different places, and that's exactly what you've got: no consensus.

In terms of Jack's main points, regarding the textbook problem, first of all, we were surprisingly in agreement as to the very poor coverage of most EST textbooks of the basic communicative features of the language of science. We felt that that was a very valid problem and that research would help to to solve that kind of problem to some extent.

In terms of the exercise material that you find in a typical ESP or EST text, we did not really agree that it was the quantity of exercise material that was the problem; rather, we felt that it was the type and the quality, of exercise material. There was a fairly consistent feeling that there was not enough variety in ESP exercise material, that ESP exercise material, heaven forbid, is boring in many cases and that a good deal could be done to improve the actual quality of the exercies without worrying about the quantity so much. In fact, one of our members pointed out that it may be an advantage to have the basic minimum of exercise material in an ESP text because no ESP text is likely to be exactly what you need and what it may provide you with is a nucleus around which to build exercises which are more specifically suitable for your students and situation.

On the third point that we discussed in depth, we agreed with Jack's contention that textbooks are very poor in supplementary features, things like review units, appendices, dictionaries and glossaries. We felt that those would be very useful, and they are indeed usually lacking from ESP textbooks.

On the fourth main point, we did not agree on the whole that there had been too much concentration on approach and methodology at the expense of the content in terms of scientific content. We didn't feel that there had been too much of that concentration, and we didn't feel that that constituted a serious problem.

Another major point that we discussed in terms of textbooks was that by its very nature, ESP is a discipline in which any particular course must be very well adapted or should be very well adapted to the needs of the group of students. As such, it is intrinsically less likely to be transferable to any other specific situation. In a sense we are cutting our own throats. The better our particular ESP course is in a particular situation, the poorer it's likely to be in any other specific situation which is different from the original situation. One personal note here, I've long felt that there should be a foreword or afterword or some kind of word somewhere in all ESP textbooks describing which type of student in which situation, be it overseas, England, the United States, exactly how and for whom this course was developed. This would greatly enable us in deciding whether a textbook is worth even considering for our particular situation. I'm afraid in the world of financial considerations there are obvious reasons why publishers would oppose this.

The last point that I want to make is that we all agreed wholeheaeredly in the hypothetical situation which I'm sure you've all faced or will face in the near future where you have a specific group of students coming in at relatively short notice and you need a textbook, as one means perhaps, just as stop gap, to help take care of them. The question was, "Would you expect to find an ESP or EST textook capable of taking care of your needs even temporarily in such a situation?" and we all enthusiastically agreed, "No." The last thing we would expect would be an off-the-shelf textbook which would satisfy our needs. And I think that's why we don't feel quite the same level of concern. Certainly there are important aspects of ESP textbooks that can be improved, but we don't feel that that is necessarily going to have a major impact on the field of ESP as a whole because the individual situations in which ESP courses are needed and produced are so very different from each other.

* * * * *

The session adjourned with the hope that the proceedings would be published and made available to you in written form so that where ever you're on your way to, you will continue this discussion whether it be in a teaching situation, a learning situation, a research situation, or any other ESP situation.

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PART I

TOWARD A SOCIORHETORICAL COMMUNICATIVE COMPETENCE IN ESP: PARADIGMS FOR PEDAGOGY

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INTRODUCTION

To know what constitutes scientific and technical rhetoric, linguists, of course, go directly to the sources of data: to written (or, infrequently, lectured) corpora extracted from various genres of technical documents. Our observations have been limited to a small taxonomy of documents, including, for the most part, journal articles, research reports, technical manuals, and textbooks. (These have been either too few in terms of kind of genre or, within a genre, not wholly extensive.)

Nonetheless, there is an irony to all of this, an irony that seems to escape otherwise responsible, instructive, rigorous linguists investigating scientific and technical rhetoric. The irony is that our linguistic descriptions have not accounted for what we might refer to as the sociolinguistics of composing an English for science, technology, and the professions.

In analyzing the rhetoric of the genres of scientific and technical English, we have approached such documents as if they somehow were autonomous wholes. It is right at some point that we do so, in order to describe grammatical-rhetorical correlations; but genres properly typifying an 'English for Science and Technology' (EST) often constitute, in today's industry and government, a communal effort, and not the work of stated authors alone. The communal effort behind scientific and technical documents is a corporate fact, a corporate exigency, perpetuated by technical-writing and technical-editing staffs, each with its own internal corporate constraints or dogma.

We have been attentive to how scientific and technical documents have been written, but not to how they have been organized. So far we have approached science writings as if their construction were an autonomous act, as if the texts themselves were autonomous sources where we could—given no limits to our analytic imaginations—observe the intriguingly systematic ways in which the form and function of grammar and rhetoric come together. We have paid attention to the role of grammar, and by extension to that of rhetoric, in scientific and technical writings, but we can lay little claim, if any, to having noted the role of the workaday, editorial conventions and dogma of the technical writers and editors in the background. We have not paid sufficient attention to the host of sociorhetorical contingencies supervening the specialists authoring a scientific report and the light of day the document sees.

Hence, at some level of linguistic theory, in order to know what constitutes scientific and technical rhetoric, we need to know what constitutes an ESP sociolinguistics. Knowing how clever technicians, engineers, technologists, and scientists are depends, of course, on our analysis of their rhetorical styles. But more than that, knowing how clever their language is--and therefore, basically, their knowledge—depends on our analyses of the editorial conventions and practices of their world. Major scientific or technical newsletters or journals, of course, possess editorial boards. Such boards, comprising editors and writers—of whom hardly any, if any, are yet linguists—often rewrite, recast or recompose the thematic, graphic, and rhetorical treatment of submitted manuscripts.

Hence, the irony facing us deepens: without some knowledge of the corporate constraints on specialist writing, applied linguists interested in scientific and technical rhetoric will never know to what extent their analyses are based on observations of genres written according to the prescriptive tenets of grammar descriptive linguists of the 40s and 50s fought against. It appears as if we who are involved in analyzing such writings will have to relive a bit of recent history and affectuate for ourselves our own development through the stages of *prescription*, *description*, and *communicative competence*. These two issues of the *ESP Newsletter* are an attempt in that direction.

Of our eight contributors, four are linguists by training (L. Blanton, J.K. Masterman, M.T. Trimble, D. Queen); one has come to technical writing by way of general studies in English literature (K. Locker); and three are professional editors and writers (S. Briles, J. Richie, M. Sanderson). Our contributors' suggestions take us on a quick, intuitive tour, as it were, through the terrain of prescription (Briles, Richie), description (Sanderson, Locker), and communicative competence (Trimble, Queen and Masterman, Blanton). The total effect of the journey should provide us with a sense of the professional parameters involved in organizing specialist rhetoric, as well as with a sense of the pedogogical and administrative concerns regarding the final product. Professional editor Susan Briles explains why applied linguists should relinquish a strong descriptivism regarding scientific and technical English. Janice Richie, herself a professional editor and writer, shares with us certain editorial techniques for sharpening the rhetorical style of engineers. Margaret Sanderson suggests a recent development in the public presentation of papers as a possible source for specialist data. Kitty Locker's taxonomy of "negative messages" in business communication introduces the applied linguist to an entirely new reflection on the wealth of data possibilities in technical communication. Mary Trimble's reflection on linguistic theory in no small way is a lucid delineation of why the language teacher cannot ignore advances in language theory. David Queen and Joan Masterman's contribution is a specific solution to how one might with a large amount of ease enhance the communicative capability of our specialist students. Finally, Linda Blanton reflects on how ESP administrators and course designers might overcome a specific but only apparent pedagogical difficulty regarding the student-writer's ability to transfer skills from an English-language curriculum to an academic-subject matter curriculum.

- Mackie J-V Blanton

A PLEA FOR THE USE OF GOOD TECHNICAL WRITING EXAMPLES IN ESP READING AND WRITING TEXTBOOKS

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In teaching technical reading and writing in ESP curricula, teachers and developers of textbooks should strive to use examples of good technical writing—which is not necessarily "typical" technical writing.

Other technical editors at the Institute of Gas Technology (IGT) and I have spent a considerable amount of time helping foreign-born authors learn to produce effective technical documents written in good technical English. As a result, many of IGT's foreign-born authors now produce better technical English than some of the native Americans on our staff. I am convinced that at least one reason for this phenomenon is that we have never given our foreign-born authors a chance to get used to producing "typical" technical writing but have instead encouraged them to produce "good" technical writing. For descriptions of what professional technical editors and writers feel constitutes good technical writing, see the brief bibliography at the end of this article.

After having served as a technical editor and then as a manager of technical editors for 9 years, I was given the additional responsibility of starting up and supporting from the United States two English-language programs operated by IGT and its subsidiary, Gas Developments Corporation, for the Algerian Petroleum Institute in Boumerdes and Arzew, Algeria. My involvement with these ESP programs between 1975 and 1979 included helping develop materials for the intermediate technical reading and writing courses.

Not being a trained ESP teacher, my suggested approach to developing material for technical writing lessons tended to be prescriptive (use passive only when necessary, use verbs instead of abstract nouns made from verbs, etc.) rather than descriptive. The TEFL teachers involved in course material preparation explained that, while the prescriptive approach works well with native English speakers, it is not appropriate when teaching technical English to students for whom English is a foreign language because these latter students have not yet learned bad habits that need to be broken—prescribed against.

I could readily understand and accept this pedagogical imperative, but I still remain perplexed by the recent tendency in ESP programs to use what are termed "authentic texts" in teaching technical reading and writing. Courses in reading technical English texts should make *some* use of authentic texts (typical technical writing), which contain many of the errors that professional technical editors and writers spend their lives striving to eliminate. After all, students need to learn how to interpret these inadequate attempts at technical communication. However, too extensive a use of authentic texts in reading courses can cause students to become so used to the unacceptable language patterns such texts contain that, either consciously or unconsciously, the students begin to emulate them. Technical writing courses taught to nonnative speakers of English should contain examples of only good technical writing.

I suggest that authors of ESP reading and writing courses have their examples and exercises checked by a professional technical editor or writer to be sure that their texts conform with what these professionals consider good technical writing. As mentioned above, technical reading courses probably should contain a few examples of substandard technical writing, but these examples should be included intentionally to teach the students to read such texts, not because they are typical examples of technical writing. Descriptive technical writing courses should not contain any authentic texts that are not also examples of good technical communication.

The use of good technical writing in examples and exercises in ESP writing courses is especially important if the students in those courses are going to be working for English-speaking companies where they will be expected to produce a variety of well-written technical documents: reports, papers, proposals, and even letters and memos with technical content. If these students are exposed to too much authentic yet poorly written technical material, they may begin producing similar substandard material themselves, following the example of the technical writing included in their course material.

A good source of technical editors and writers to review the exercises and examples in ESP textbooks to be sure that they represent good technical writing is your local chapter of the Society for Technical Communication (STC). This organization of more than 5000 technical communicators has members in all 50 states and several foreign countries. If an STC chapter is not listed in your phone book, either STC's Washington office or I would be glad to give you the name of the chairman of the STC chapter nearest you. That chapter chairman could put you in touch with a technical editor or writer (freelance probably being preferable) who could review the pertinent parts of your textbook for you. The phone number of STC's Washington office is (202) 737-0035. My phone number is (312) 567-5240.

If the technical editor or writer who helps you is not familiar with the specific subject of your technical writing examples, you should also have the examples reviewed by a technical expert in that field. Technically trained students seem to relish embarassing their ESP teachers by pointing out such errors.

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ESL TEACHER EXCHANGES

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THE LANGUAGE HABITS OF ENGINEERS

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This article will necessarily ask more questions than it answers because it is based on observations, more random than systematic, by a teacher of writing who as a freelance editor, has worked in both capacities with engineers, including mechanical, chemical, electronic, and structural, as well as with chemists, biologists, and physicists. Because I teach these engineers how to improve their writing, especially how to eliminate the confusion arising from faulty word order resulting from using phrases instead of single words, and the disjointed quality of their expression caused by a lack of transitions or linking words between thoughts, I have begun to note their special language habits, to speculate on the origins of these habits, and to devise methods for correcting those that interfere with the clarity and readability of their written communication.

If Benjamin Lee Whorf's hypothesis is true, that our view of the world is shaped by our language, perhaps the opposite is true of the engineer that his discipline or "world" shapes his language.

For those who teach writing courses to engineers and for those who edit the writing of engineers, the following discussion of their language habits and the functions of those habits should provide a basis for understanding and dealing more sympathetically with the engineer's language. For both teacher and editor, these are habits to be aware of and to revise or replace, if necessary.

In questioning engineers concerning these language habits, I have been told that one reason for the wordiness and the overuse of passive verbs (also producing wordiness) is the need to be tentative. The engineer is acutely aware of the exceptions inherent in many conclusions or general statements, and wishes to allow for them or for other points of view. Thus, not only does the engineer's tentativeness produce wordy, roundabout expressions and passive verbs, but it promotes removal of other verbs or action words from his writing, replacing them with nouns, noun phrases or adjectives. Striving to be provisional, the engineer produces such phrases as "It is suggested that...." or "It is recommended that...." or "It should be noted that...." To be tentative, engineers seem to feel, their own personality must disappear from their writing, and thus the "It...that" phrase proliferates. Very often, the engineer has been directed to write in the third person, eliminating the "I" to allow for alternate points of view or to soften a directive. But such wordy phrases as those I just quoted contain passive verbs, a weak beginning for a sentence, and thereby force the real and significant verb into the middle of the sentence, where its impact is either diminished or lost entirely.

The tendency to turn verbs into nouns is also pervasive in engineering and scientific writing. Sometimes the writer will replace the real and specific verb with a general, weaker and more common verb, turning the real verb into a noun, as in "make an hourly check" instead of the stronger "check hourly." Perhaps the tendency is to see actions as functions with titles rather than as movements.

Other common/general and weak verbs which displace stronger verbs are have, be, come, carry, hold, take, give. These verbs overload verb phrases and displace the real verbs in such examples as "have a point of view," "carry out an experiment," "take a count," "give a presentation," and "come to a conclusion." Not only does the engineer seem to favor these general verbs, but he/she favors several general nouns, attaching them to other nouns, thereby turning the nouns into adjectives and weakening them. Some of their favorites are degree (to indicate measurement), factor (to indicate a feature), characteristics (to indicate many aspects of a product's performance or workings), area (to indicate space or a part). Often these general nouns become redundant because the words to which they are added already denote the same meaning. Note the following example: "will not be to a detrimental degree but will be noticeable." The phrase "to a detrimental degree" can be replaced by the single adjective, "detrimental." Note also this example: "The performance characteristics are satisfacotry." "Performance" only would be more direct.

Another noticeable characteristic of engineers' language is their use of phrases in place of single descriptive words, a habit which also produces wordiness. One construction they use to achieve clarity but which just adds unnecessary words is the "for...of" construction, enclosing a verb that has been softened and weakened to noun status. We find these examples in such phrases as "for support of," "for make up of," "for attachment of." These phrases can be changed to "to support," "to make up," and "to attach"; and the writer will gain both strength and clarity.

Engineers use the word "of" in an unnecessary way, namely to add a modifier to a noun, as in "the dissipation of heat," instead of simply—"heat dissipation."

Another dominant characteristic of engineers' writing is the need to think in parts, concentrating on the components that make up a whole. This thinking in often mutually-exclusive parts produces a series of short, often choppy sentences, all expressing seemingly mutually-exclusive ideas, but more often at least partially repetitious ones. The engineers and science professionals know these parts relate, but this knowledge does not seem to translate into language. One engineer once explained to me that he has no need to clarify the relationships because he can clearly visualize them. But he also readily admits that he lacks some of the linguistic expertise to turn his knowledge into words that a layperson can understand. Participles, gerunds and a wide variety of transition words seem not to be part of the engineers' vocabulary. Moreover, when I have encouraged their use to combine short sentences or relate ideas, the engineers and science professionals don't feel comfortable using these transition words, participles or gerunds. They resort to passive verbs, wordy phrases or unnecessary repetitions to accommodate their needs.

The tendency to think in parts or components is apparent in the following example:

> The control unit is provided with a five digit florescent display and a 20 key computer-type keyboard. The control unit uses a microprocessor for its time base and computer-type functions.

The obvious revision of these two sentences is to combine them, using a participle to turn the second into a participial phrase. But the participial phrase as a sentence combiner is foreign to the engineer.

Some engineers have also explained that they do not think in words, but rather in symbols, using numbers and graphs to show relationships. Their thinking assumes graphic forms, like pictures which must be translated into words. But sometimes the right words don't come. These same engineers also go on to explain that they have a strong theoretical drive, a need to understand the "why" of things. But their searching, speculation and explanations often become confusing to the layperson, again because the most appropriate words to express these concepts do not come easily. In order to clarify meaning, rather than eliminating them, the engineer adds words; the construction "which is" is a prime example. Engineers use "which is (are, was, were, etc.)" to introduce examples or details:

> This device consists of three major components which are a servo mechanism, a solid state electronic assembly and a control unit.

The sentence may be revised thus:

> This device consists of three major components: a servo mechanism, a solid state state electronic assembly and a control unit.

The revision tightens the sentence and clarifies the relationships.

They also use "which is" to introduce a description of function, as in the following example: "The unit which is joined to the parent system can also function independently." A tighter revision would suggest:

> The unit joined to the parent system can also function independently.

In this unrevised example, the "which is" construction introduces a participle that can stand alone as a modifier of "the unit" and needs no other help.

One excellent example, illustrating several characteristics of engineers' and science professionals' writing is the following explanation: "In the system, pressure is increased by causing boiling of some of the water to form steam at equilibrium pressure." This sentence deserves a thorough functional analysis to get to the core of the difficulty. "In the system" answers the question "where" and pinpoints the location of the action to be explained. "Pressure" is the outcome of the action. The passive verb "is increased" indicates the action but we do not know who or what performs the "increasing." The phrase "by causing boiling" indicates how the action of "increasing" takes place. Then the writer tells what "boils" (e.g., "of some of the water."), using two "of" phrases. The next two phrases, "to form steam at equilibrium pressure," name the end result of the "boiling."

But we still do not know what precipitates these events, nor do we fully understand the process, because as the sentence stands, there is a double outcome, one at the beginning and one at the end. Only after questioning the engineer/writer can the editor clear up the mystery. The following revision was the outcome of such a conversation:

> "To increase pressure in the system, electric heaters boil some of the water to form steam at equilibrium pressure."

The revision highlights the real outcome and names the precipitator of the action. Notice in the original how the passive verb ("is increased"), the phrases instead of single words ("by causing boiling"), the "of" phrases ("of some of the water"), and the nouns standing in for verbs ("boiling") clutter the expression and confuse meaning.

Sometimes the editor or teacher may have to analyze carefully such a sentence in the company of the engineer or science professional in order to clarify meaning and focus.

Both the instructor in writing courses for engineers and science professionals as well as the editor of their writing can benefit from a broader and deeper understanding of these language habits. The engineer or science professional can also benefit from these insights, because both teacher and editor will than be better able to meet these writers' needs for clarity, their needs to be understood, and their needs to translate what they know so well into lay language.

THE VISUAL AS A RHETORICAL DEVICE: THE USE OF POSTERS IN BIOMEDICAL MEETINGS

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The annual meeting of a professional society serves as the occasion for the exchange of the newest information. When the society is small, a member who presents a paper orally reaches most of the attendees. As membership grows, however, concurrent meeting sessions are added to the meeting and a single presentation might then reach only a small portion of the attendees. In order to solve this communication problem, increase the number of presentations, and increase interchange of information among attendees, many societies are adding so-called visual poster sessions as a growing part of their meetings. For these sessions, a specific time is set aside in the program for the presenters of the listed posters to be present in the poster session hall to answer questions and to use the contents of the poster as a starting point for interchange of recent scientific results with other interested attendees.

Among the fields in which visuals, i.e., poster sessions, are now used rhetorically are English, Anthropology, Journalism, Metallurgy, Solid State Science Reactor Engineering, and the Physical, Natural, Medical, and Life Sciences. Preparation and use of poster presentations in biomedial subjects are discussed here.

For more than 35 years large medical societies, such as the American Medical Association and the American College of Surgeons, have included poster displays and film presentations as well as platform talks by society members at their annual meetings. From the poster sessions attendees may gather information all day and evening, if they wish.

Over the past 20 years the paper load in the small biomedical societies became so great that many papers could not be accepted for presentation. When poster sessions were added, the decision as to whether a paper would be presented orally in a regular session or as a poster was made by the program committee on receipt of the abstracts from members; the investigator had no choice. Thus, the category at first was a sort of dumping ground for papers considered to be either not good enough for presentation or not conforming to any category in the regular sessions. After a few years the unique potential for the poster presentation of certain kinds of information became obvious; abstracts specifying a preference for a poster format could be submitted, and the attitude toward the poster presentation changed completely.

Biomedical information and ideas can be presented more easily and effectively with visual aids. Therefore, a visual poster session suits this field of inquiry quite nicely. The aids are more explicit and contain more information than prose versions of the same material. It is easier for a reader to visualize physical objects or histological structures from pictures than from words. Subjects particularly suited are:

(1) methods and how-to-do-it papers; (2) what-it-is and how-it-works displays; (3) what-is-happening and how-does-this-compare-with-the-normal-situation exhibits; and (4) what-are-the-similarities and what-are-the-differences presentations. The topics are almost limitless.

Additional advantages of the poster presentation are that the work reaches a much larger audience, the more informal atmosphere is more conducive to questions and lively discussions, and the visuals attract viewers and also focus the discussions. Individual pictorial aids are especially useful for comparisons among a series, or between a control and an experimental subjects, because they can be studied at the same time. Such comparisons are difficult in a rapid slide presentation, in which the viewer cannot reverse, recall, or reconstruct the study object from memory.

Therefore, if we consider traditional modes of discourse development, we see that poster sessions are readily suitable to oral research reports where strategies of presentation are classification, illustration, analysis, or comparison and contrast. As for narration, description, exposition, and argument—the more traditional modes of rhetoric—we see that the poster presentation always takes place with the analyst as presenter: the analyst can begin by narrating the background to his or her research (INTRODUCTION); then a poster can list salient features of the research project, describing them through definition (DISCUSSION); thirdly, the presenter can then in turn be prepared to expose and develop the overall scope of the current research (DISCUSSION); finally, another poster can list the advantages of the research methods and probable benefits of the results (CONCLUSION). Other posters might also be used to project statistical data or show blow-ups of animal or human cells or list principal applied-mathematical formulae.

If one plans to report on work in a poster presentation, the first step is to select a single topic and submit a short abstract for acceptance when the "call for papers" request is received from the society. The researcher should think up a simple, meaningful title—one that can be understood by the general public as well as one's peers. One should not use a title like MACROPHAGES AND LYMPHOCYTES (even a fellow immunologist might wonder what is meant) when LYMPHOCYTES AND IMMUNITY would be better understood by everyone. These titles from a recent program are explicit in their statement of content:

1. THE MODULATION CONTRACT MICROSCOPE
2. PREPARATION OF COLLOID SILICAPOLYMER SOLUTIONS FOR DENSITY GRADIENTS
3. LYMPHOCYTE-ERYTHROCYTE MEMBRANE INTERACTIONS OF B AND T LYMPHOCYTES
4. MOLECULAR BASIS OF CELL ADHESION
5. CHANGES IN CELL MEMBRANE STRUCTURE ASSOCIATED WITH NEOPLASTIC TRANSFORMATION IN HUMAN URINARY BLADDER EPITHELIUM.

Then, after acceptance, the researcher consults the instruction sheet for preparing posters for the meeting; it usually arrives with the call for papers. Some societies require very specific formats, even stating letter size for title, author(s) and affiliation, labels, figure legends, and table titles. Other societies specify only that the poster include a title and author. Each poster is set up for one entire day, with the author in attendance for 2 - 3 hours at the time specified in the program for discussing his research and answering questions.

Preparation of the posters is an intricate matter. The researcher writes needed textual material, giving only the essential information simply, clearly, and concisely and makes line drawings and graphs whose meanings are evident at a glance. One also must construct three-dimensional models that can be either attached to a mounting board or exhibited freestanding. The researcher should select pictures and electron micrographs, organize their layout to convey ideas to the best advantage, and write simple figure legends for them, if needed. A picture should not be selected just because it is pretty; but one can choose to use one with faults if it illustrates an important aspect of the research topic. After all, one purpose in constructing the display is to attract viewers to hear the research. When the parts of the poster are assembled, it is useful to consult an associate or an editor of the society to be sure that the objective of the report is clear and that the most effective presentation has been obtained.

The space assignment for an actual poster presentation is usually 32 ft^2 (2.9 m^2). The kind of mounting board (flat or triptych) the society provides will govern one's layout and the optimum size of each poster piece. Using the information from the society for mounting posters, the research investigator draws to scale a preliminary layout plan of the exhibit, using the whole area, and allocating space and location for each written and visual segment. An alternative method of defining the layout is to cut pieces of blank paper of the proper size and label each piece. The pieces can be rearranged on the specific mounting board area until the most effective layout is achieved.

Unless one is a skilled artist, a researcher should have the title banner, graphs, and line drawings prepared by a professional draftsman. The title banner should include the title, author, and author's affiliation. Color can be an attractive feature to add to black and white visuals. For texture and contrast, graphs can be color-coded; also, photographs could be mounted on colored mats. All the written matter must, of course, be typed, including the abstract and figure legends, on a typewriter with large print, such as an IBM bold typewriter or an IBM Selectric typewriter using a 10 pitch Orator element. The pages will be photographed, so clean type and very black print are essential.

To mount the texture and visual material in the display, the researcher uses a copy stand, nonglare glass, and flood lights to photograph the typewritten pages, graphs, and line drawings. One should employ a Kodak Panatomic-X film in a solidly mounted 35-mm camera with a 55-mm f3.5 macro lens. An amateur camera buff who owns a tripod and a macro lens can take his own black and white pictures with an ordinary copy stand or with improvised equipment. Next, the presenter-to-be enlarges and makes prints of the negatives to fit the mounting board specifications. The capital letters should be 3/16 - 4/16 in. high, large enough to be read easily from a distance by more than one reader at a time. All groups of electron micrographs and photomicrographs must be printed with matching density. All the photographs with a matte finish must be dry for best visibility. One must attach prints to firm mounting boards (either pretrimmed to size or to be trimmed later), using dry mounting tissue and a press. One must attach figure legends to mounting tissue, trim to size, and press onto the proper figures. One must label the photographs with stick-on labels, arrows, and magnification scales, if needed.

Finally, to simplify setting up the poster at the meeting, the researcher-presenter should make a map of the layout and label and number each piece on the back, then set up the display before leaving for the meeting to check for completeness and appearance.

Further useful suggestions are that the researcher-presenter should

1. not mount elements of the poster on anything larger than 16 x 20 in. boards. (He or she will be the one who has to carry them to and from the meeting.)
2. not plan to use electricity in the exhibit. (It is often not available.)
3. not rely on the availability of mounting materials. (One should bring one's own 5/8" push pins, roll of double-sided sticky tape, scissors, and other material the exhibit may need.)
4. not discard the poster presentation. (It can go on display in one's job-site laboratory where it can attract attention and help explain the research to visitors, tour groups, students, attendees at open houses, and associates.)

Many scientists in the biomedical specialties are now convinced that a poster presentation is the ideal method for presenting data. The advantageous, sometimes spectacular, use of all kinds of visuals and the heightened opportunities for questions and lively discussions in an informal setting make poster sessions a stimulating experience.

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English For Specific Purposes

SPECIAL ISSUE

PART II

TOWARD A SOCIORHETORICAL COMMUNICATIVE COMPETENCE IN ESP: PARADIGMS FOR PEDAGOGY

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THE RHETORIC OF NEGATIVE MESSAGES

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The study of negative messages is an important area in business communication. Negative messages are defined as those which convey a rejection or some other disappointing news to the reader. Other kinds of messages (e.g., informative, persuasive) may also have negative elements.

The primary criterion used to evaluate negative messages is reader response: an effective negative message is one which conveys the negative information clearly while maintaining as much goodwill as possible. Continued goodwill is desirable since the writer and reader will continue to deal with each other. Even in cases where further interaction is unlikely (for example, when a company rejects a job applicant or refuses to renew a customer's insurance), the firm wants anything the reader may say about the company to other people to be positive or neutral rather than negative.

There are six basic principles for the construction of negative messages:

1. Use of a buffer. (A buffer is a neutral or positive paragraph which enables one to bury the refusal itself.)
2. Explain why you are refusing.
3. Explain why you are refusing before you refuse.
4. Phrase the refusal itself as positively as possible. Avoid negative words; emphasize what you will do rather than what you won't do.
5. Offer an alternative or a compromise, if one is available.
6. End on a positive, forward-looking note. (In retail situations, this paragraph is called "resale"; in it one attempts to persuade the reader to buy one's products.)

Although these are generally accepted principles which have been endorsed by every text for years, they have only recently been subjected to empirical testing. The experiments conducted thus far suggest that received wisdom may offer an inadequate and in some cases even misleading guide to the construction of negative messages.

The first empirical validation of the theory of negative messages was offered in 1969 by John D. Pettit.[1] His work was replicated with Spanish-speaking Mexicans in 1976 by Jack D. Eure, Jr.[2] The methodology employed in these studies, however, had a serious flaw. The research design compared a "good" letter and a "bad" one. The "good" letter used all six principles; the "bad" letter violated all of them. In addition, the "good" letter was three times as long as the "bad" one. With so many uncontrolled variables, it is impossible to explain why the "good" letter received a more positive response. Perhaps people simply prefer longer letters.

In the last three years, I have tested two of the six principles: that readers will respond more positively to refusals which are buffered and to those which contain resale. In tests with nearly 200 students at Texas A&M University and the University of Illinois in 1978-79, I found that buffers did not affect reader response, that a strong resale was counterproductive in credit refusals. Responses did vary, however, and in the past year I have used a slightly different research design to try to discover what factors affect reader response to negative messages. Tests with 880 students at the University of Illinois have again shown that in a credit refusal, neither buffers nor resale affects reader response significantly.

Some of the significant interaction effects also challenge the received wisdom.

1. When letters contained resale, a letter with an impersonal buffer was judged to be better written than an otherwise identical letter with a personal statement for a buffer. When resale was absent, the letter with the personal buffer was perceived as friendlier and more polite; subjects receiving the personal buffer also indicated that they would be more likely to return to the store that had denied them credit if they wished to make purchases in the future.
2. When resale was present, there was no difference between a letter with a flat refusal in the first paragraph and one with a brief reason preceding the refusal. When the letters lacked resale, however, the version with the reason first elicited a more positive response.
3. When an impersonal buffer was used, the letter using resale was perceived as friendlier; subjects receiving it said they would be more likely to return to the store in the future. However, the subjects receiving the version with resale were less likely to think that the store's credit policy was fair.
4. When a personal buffer was used, the letter without resale was perceived to be better-written than was the version with resale. Again, except for the presence of the resale paragraph, the letters were identical.

My hypothesis that response might be due to demographic factors such as income or previous credit history was not supported. Although response was more positive as the subjects' family income rose, the differences were not significant. Subjects who had been denied credit in real life had a slightly more positive response than those who had never been denied or had never applied for credit; but again, the difference was not significant. There was no relation between the response and the number of charge cards the subject had or the dollar amount he or she had charged.

Indeed, the only demographic factor affecting response is sex: in all my tests, women have consistently responded more positively to credit refusals than have men.

The other factor that significantly affected response was the degree of surprise the subject felt for the fact that, under the conditions specified in the experiment, the application for credit was denied. Subjects who described themselves as "totally surprised" had much more negative responses and described their feelings as being stronger than did those who expected the refusal. Subjects who had been denied credit were less likely to feel surprised.

The received wisdom about negative messages is too simplistic. Whether a buffered refusal is better will depend on the specific buffer, the rest of the letter, and on the situation. Indeed, the dominant factors may well be functions of the situation rather than of the way the message is presented.

I suggest the following as working hypotheses:

1. Response will be more positive when
    a. The reasons for the refusal are perceived as legitimate.
    b. The refusal is not totally unexpected.
    c. The refusal is not perceived as catastrophic, that is, when the reader either can do without what he or she requested or can meet the need in another way.

   In these cases, it may not matter whether or not buffers and resale are used.
2. Any buffer or resale which sounds selfish (e.g., "keep buying our products") will produce a more negative response.
3. A letter which begins with the refusal will receive a more positive response if the reader is already suspicious of the writer or fears getting a "run around."

The best guide to producing negative messages may well be empathy for one's reader. The writer who recognizes the reader's intelligence and ego-involvement will be better able to write negative messages that are clear and compassionate.

☆ ☆ ☆

NOTES

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THE WIDENING ROLE OF THE LINGUIST AND THE LANGUAGE TEACHER

Mary Todd Trimble

If one looks at linguistics and language textbooks of the fairly recent past, it becomes clear that the concerns of both linguists and language teaching have broadened. Language teachers have of course regularly gone beyond what has been documented by linguistic theory, and have of necessity relied heavily on common sense and intuition in those areas not mapped out for them by the accepted theories of any given moment. Nevertheless, in the major focus of their teaching and testing we can see a certain reflection of currently accepted linguistic approaches.

In the forties[1], when language teaching was making the claim to be a science rather than an art, it took from structuralist linguists a stress on the grammar of single sentences, and from behaviorist psychology a concern with forming correct habits by having students constantly repeat correct structures. A language teacher was likely to feel that his major task was to enable or oblige his students to drill the sounds and basic grammatical patterns of his target language so thoroughly that the students would be correct by habit. Errors, it was felt, were always pernicious, as anything repeated was reinforced and so more likely to recur. In contrast with the preceding methods, now frowned on as unscientific, vocabulary received less attention, and translation was avoided because it was felt that it risked bringing irrelevant habits from the learners' first language to interfere with the new set of habits they should be acquiring in the target language. Language learning was believed to be not a matter of understanding and mental activity, but of mechanically producing the sentences required which should be called up automatically by direct association with their meeting.

Three new major developments in linguistics have affected the teaching of languages since the structuralist-behaviorist phrase. Each has given theoretical and principled support to aims and practices that already had some place in the language classroom, but had been dealt with in *ad hoc* ways by teachers and text-book writers relying on individual intuition and common sense.

The first of these was for language pedagogy the most revolutionary in its view of language and linguistics: namely, the transformationalist's philosophical view that learning a language is a creative process involving intellectual activity, not simply the acquisition and mechanical production of a set of grammatical structures; and second, his belief that language rules are of more than one kind and work at more than one level—that there is a basic set of phrase—structure rules and other kinds of rules that work on and change the structures or embryo structures produced by the phrase-structure rules. These two features of generative-transformational grammar have had a marked effect on language teaching, in particular the first feature, which has seemed to give sanction to freer, more creative and more cognitive classroom activities.[2]

Both structuralist and transformationalist grammarians aim to analyze form without resource to meaning, though both rely on meaning to a similar extent in that they are concerned to know whether changes in form are merely paraphrases or involve a change in meaning. Transformational generative linguists, however, go further, including within grammar areas that structuralists would have disowned, and their work comes impressively close to the major concerns of language teachers today. A teacher would always have felt it his or her duty, except in a piece of fantasy, to correct a sentence like "The gas is enthusiastic about the higher temperature." A structuralist would probably say that it reflects both the grammar, which was his concern, and nonsense, which wasn't. A transformational-generative liguist would be likely to say that although the sentence was ungrammatical, there were rules of co-occurrence demanding an animate subject for "be enthusiastic." This kind of explanation, affecting the choice of vocabulary and affecting descriptions of the possible transformations of the complements of different groups of verbs, shows pattern in areas of language not seen as patterned before. Explanation of this sort helps in choosing the most effective way to group vocabulary for teaching. (Case grammar, of course, is also helpful in understanding the different behavior of sub-groups of nouns and verbs.)

In my opinion, however, advances in pedagogy regarding languages for specific purposes must rely in turn on theoretical insights concerning the *functions* of language units, *cohesion* among language units, and the role of *coherence* in specific texts. The second major recent development in linguistics has been the relationhip of the concept of function to the structure of language: i.e., language forms viewed in relation to the meanings they can be made to carry. The question form, for instance, may indeed function as a question, where an informative answer is expected; and when we see an isolated question out of context, this is usually how we would interpret it. "Is the gas escaping?" would then seek a straight "yes" or "no" answer. But it is often the case that the question is a *request* for action ("Please close the vent!"), a *reproof* ("You have been shockingly careless!"), a *warning* ("Get out of the lab!"), or as a rhetorical question acting as a topic sentence or heading for a following paragraph.

Work on pragmatics, speech acts or illocutionary acts is helping us to understand better how to categorize the functions of language and how the forms of language are used to carry them out.[3] Teachers have often tried to go beyond fluency in classroom exercises to a mastery of language for use outside the classroom, and now more teachers than before accept that their job is not finished when students can pass a grammar and vocabulary test but only when their students can use language as a tool for formal and consultative purposes such as work and travel. They also nowadays have more help available from linguistic theory. Thus, the growth of language behavior in the classroom can proceed from fluency through accuracy to, finally, mastery of forms and functions in context.

Another major development in specific-purpose language pedagogy is the increasing interest of linguists and teachers in units of language larger than the single sentence. This approach usually known as "discourse analysis," demonstrates how grammar works across sentence boundaries as well as within them, and shows how stretches of language are bound together by pronoun reference or the choice of article or tense-balance and connectives, such as 'however' or 'also'. This element of *grammatical cohesion* has been discussed by linguists such as Halliday and Hasan,[4] and work on it is now found in language-teaching text-books such as Oxford University Press's *Focus* series.

Units of language are bound together also by *coherence*--by being recognizably about a single topic or a linked series of topics. At times, units such as sequences of sentences may not actually show any grammatical cohesion, but may nonetheless be clearly recognized as units. We automatically look for such units as we read or listen, and are disconcerted when there is a jump we cannot bridge. The sequence "The gas is escaping. That's dangerous. It might ignite. Put those cigarettes out and close the vent." shows coherence but not cohesion. On the other hand, a context such as the following one appears to be incoherent: "The gas is escaping. That's dangerous. It's not a right triangle you're supposed to be figuring out. And it's your log tables I want." The first two sentences are cohesive with each other, and the last two sentences are cohesive. However, the sequencing of these two cohesion sets is incoherent. Often initial writings of language learners are of this sort. Thus, we see that the objective of instruction has moved beyond the grammatical sentence. Though students have always been expected to produce coherent written work, in older text-books the exercises meant to prepare them for this have often consisted of self-contained sentences, and only recently have exercises working on longer stretches of discourse, training students to write cohesively and coherently, become common.

Text grammar, whether structuralist or transformationalist, is as much the linguist's and language teacher's concern now as it ever was, though now one is concerned too with the meanings communicated, the functions fulfilled, and with larger stretches of discourse. Researchers and materials writers now work with stretches of language beyond the single sentence and explore the relations between their main and various subordinate communicative functions--the place of a clarifying definition, for instance, within the description of a technical process--as well as their grammatical elements. Once a sentence has some context, it is in fact difficult to rest at the function implied by its grammatical form and not to go on to see how a statement form may, for instance, function as an apology or an instruction. The attention to function, conversely, pushes the researcher, teacher or student to look for context to clarify function. Work on 'discourse' or 'rhetorical' structure by applied linguists such as Candlin, Selinker, Sinclair, Trimble and Widdowson is enlarging our understanding of the structures of both written and oral discourse, thereby making more effective teaching and teaching materials possible[5]; but there is clearly room for a great deal more work on the structure of discourse and its relation to grammatical structure, and on the best way of using this to get students communicating genuine meanings in their new language.

* * *

NOTES

[1] C.C. Fries, W.M. Sale, and E.H. Zeydel. 1940. *Language Study in American Education.* New York: Commission of the Modern Language Association of America on Trends in Education.

[2] Karl C. Diller, "Some New Trends for Applied Linguistics and Foreign Language in the United States," TESOL Quarterly, Vol. 9, No. 1, March 1975: p. 72.

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[5] A much fuller discussion of this line of development in language study and language teaching can be found in *The Communicative Approach to Language Teaching,* edited by C.J. Brumfit and K. Johnson, Oxford University Press, 1979. Page 134 of John Munby's *Communicative Syllabus Design,* Cambridge University Press, 1978, has an interesting diagram showing the different layers of meaning distinguished by different linguists.

THE VIDEO OPTION

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The inevitable constraints imposed upon a teacher often relegate the specific in "English for specific purposes" to a distinctly subordinate role. To a considerable degree, employing video can rectify such an imbalance. We recognize S. Pit Corder's distinction among the three applications of video—whole, major, and minor job—in language teaching (Corder, 1966). In brief, a whole-job operation provides all instruction through video; in a major-job operation, video supports the teachers in areas where they are inadequately trained. In neither of these applications does the substantial reliance on video for language instruction allow for student interaction with actual, competent teachers. For this reason, the minor-job operation, where video is used to complement classroom techniques, serves as teachers who cannot always accomplish course objectives effectively within the confines of the traditional clasroom (Kennedy, 1978).

The most common uses of video in TESL/TEFL have been in teacher training and evaluation, where teachers can critique themselves or observe new methods. ESL students also have benefited from reviewing video recordings of their classroom performance. For some ESP students, particularly those in advanced academic or technical programs, video has been instrumental in the teaching of note taking and listening comprehension. Through video, these students are exposed to authentic discourse in a variety of linguistic contexts. ESP teachers and students have profited by video's singular advantage over other learning aids; that is, its unique capability to present total language behavior. However, those using video for these purposes have merely begun to explore video's potential contribution to ESP methodology.

Teachers contemplating the use of video as a learning aid should ask themselves what components of an ESP course cannot be effectively presented in the classroom. Because economic, temporal, or logistic constraints often prohibit the the availability of adequate media facilities for illustrating the applications of the language that have been isolated from their context, teachers should consider the video option. Let's consider just three areas that present serious challenges to standard methodology: vocabulary, role modeling, and visual interpretation of rhetorical functions.

Vocabulary ambiguity, the most obvious problem area that can be addressed by video, can be eliminated by visually demonstrating the distinction between terms, thereby avoiding cumbersome phraseology or tiresome and often ineffective explications. For example, the difficulty of conveying the quality of unexpectedness in abrupt, which is not found in sharp, can be overcome by presenting examples of actions distinguishing the two terms. Differentiation among incinerator, oven, kiln, and furnace would require the teacher to provide place, function, and purpose for each; a task not easily accomplished through photographs, slides, or descriptive prose. However, with video this information can be condensed and integrated economically into a cohesive unit. In addition, the applications of verbs of graduating degree (e.g., pull, jerk, and yank) in industry can be impressed upon the learner by video demonstrations that emphasize the costly mistake that can occur when these actions are interchanged.

Role modeling, dramatizing conversation in specific context, is the best strategy for confronting the learner with the linguistic behavior he will encounter and react to after his training. How practical can it be to bring the student to the situation? Why not bring the situation with all its attendant complexity to the learner through video? The experience of technical trainers in the use of role modeling has shown it to be one of the most effective uses of video for illustrating target behavior. Professional actors are not essential if real people can play themselves naturally (Floyd, 1979). For instance, registers and kinesics associated with professional and occupational relationships can be readily conveyed to the learner using video segments. Areas of conflict or misunderstanding that can negatively affect a person's performance should be addressed in ESP courses in a more imaginative way than through contrived teacher-student exchanges. Interesting work in this field is being done by the World English Center at the University of San Francisco, which publishes the ESL Video Newsletter.

Although the role of rhetorical functions, such as description and instruction, is impressed upon students throughout their ESP courses, it is invariably approached through manipulations having minimal contexts. The often remarked paradox in ESP, that the target language itself is the language of instruction, can be partially resolved by presenting visuals to elecit the desired discourse. Video allows us to modify the traditional learning order so that the referent can be introduced prior to its verbal representation. Large or expensive pieces of equipment can be shown from all angles and in operation; students can then describe the objects, relying on their own visual perception and the rhetorical devices under discussion. This same procedure would be equally effective when following a process from inception to completion. Additional features of this approach would be to ask students a) to respond to a given video segment using a particular rhetorical device or b) to encourage them to debate the selection of one rhetorical tool over another.

The art of giving and following instructions is another skill that can profit by video treatment. The learner's awareness of the necessary sequence and interdependence of events or tasks is heightened when video is used to depict the consequences of not performing operations simultaneously or of not providing complete, unambiguous information to others on this sequence and interdependence.

Realistically, we must concede that the minimum investment in video equipment represents a not insignificant expense for most institutions or departments. However, the indisputable advantages of video over other media more than justify this cost. Only video can incorporate in one program the distinctive attributes of film, illustration, animation, slides, and print photography. Once video equipment is acquired, teachers can easily produce straightforward and useful segments for in-house projects. Add to this video's unique ability to freeze a shot or to recall scenes for further discussion, and you have a teaching and learning asset that can bring reality into the classroom and, thereby, rationalize the time allotted to English in programs whose primary objective is preparing students for occupational and/or academic situations.

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ESP: BENEFITS FOR ALL OF ESL

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When ESP curricula are viewed within the confines of specially-designed programs administratively and academically set apart from "straight" ESL courses, it is often hard to see what ESP has to offer the general field of ESL. Many ESL administrators, especially those who are already hard-pressed by limited financial and administrative resources, would dismiss ESP as too costly and grossly unrealistic. There are, however, many aspects of ESP, when viewed as an approach to English language instruction, which could easily be incorporated into almost any ESL program with subsequent benefits for all. The incorporation of an ESP approach would involve no change in administrative or support staff, no change in admissions or placement procedures, and very little teacher training. It would require a consensus of opinion by staff and faculty as to why students in the program were learning English, which would, of course, mean that there would have to be an ascertainable singleness of purpose among the student body. (This purpose is to a certain extent predetermined by the physical location and time schedule of the ESL program; students would generally be in class to learn English for "survival," for future academic work, or for entry into the job market.) Incorporating an ESP approach might also involve either writing some class materials or searching for different ESL textbooks.

What an ESP approach is, and how it could change the nature and focus of an ESP program without changing its administrative structure, can be illustrated by an analysis of and suggested solutions ot the following problems: Teachers in an intensive ESL program located on a college campus are unhappy with their success in teaching composition; there is a bottle-neck at the advanced level where many students have difficulty reaching a level of competence that is deemed acceptable for placement into English 101 (Freshman Comp.); the ESL program is also under fire from the rest of the college because even those students who do place into 101-level courses still have great difficulty in doing the writing necessary to pass college-credit courses.

The nature of students' training in ESL composition is, of course, reflected in their writing. Whether or not that writing is judged acceptable depends on the expectations of those who will read it, and their expectations evolve from a sense of the appropriateness of the language for its intended purpose.

It is not that a majority of the students in the program cited as an example above are simply "bad" writers; it is that the students in that program are trained in narrative-based writing, while the advanced-level ESL and post-ESL teachers, without any formal recognition of it on their part, are judging against a standard of impersonal, formal exposition. Students do not know that the narrative writing techniques they have learned cannot be applied to all types of English composition; therefore, they write all compositions as if they were narratives and the structure of the writing program in this particular example does not take into account the fact that students' writing will, at some point, be judged by standards other than those by which students are taught.

The subsequent mismatch between the student-writer's rhetorical treatment and the academic readers' expectation of other types of treatment results in many of the following negative judgements: 1) Students writing is judged as juvenile and unsophisticated; this is largely because of students' personalized approach to every topic, which results from their training in writing personalized narratives in their early ESL composition courses and never having been trained away from them in their subsequent courses. 2) Students' writing is said to ramble and say little of importance; the students' attempt to sequence expository points as if they were chronologically-ordered events may be responsible for

this effect. Furthermore, loose, indirect expression seems to multiply grammatical errors, while the tight, internal control demanded by an expository treatment which students have never learned helps to limit and predetermine the content, thereby lessening the possibility of errors.
3) Student's writing is judged as lacking in overall purpose, indicating that the writers do not properly plan in advance what they want to say and how they want to say it. No sense of purpose is conveyed to the reader because students are probably unaware that there are rhetorical frames which must be established by the writer to convey to the reader whether the piece of writing is supposed to define, evaluate, classify, analyze, etc.

How might this seemingly impossible situation be improved? A brief survey of the examinations, class discussions, assignments, and textbooks of college-credit courses would reveal a basic core of linguistic and cognitive approaches and responses to academic topics and situations. Those who teach composition in an ESL program need to know this information because such is the reality for which college-preparatory ESL students must prepare. This survey could be conducted by a small committee of ESL teachers and would probably not take longer than a couple of weeks. The survey would probably reveal that students are commonly called upon to analyze, define, refute, support, evaluate, interpret, describe and classify. The more thorough the survey, the longer the list; but the surveyors would ultimately end up with a common, limited core of tasks which students are asked to perform again and again.

The list could then become a useful basis for the ESL writing program, and the core terminology could easily be understood by students if rephrased as questions. For example, if students are being trained to define, they would write to answer the question "What is ____X____?" Of course, the list is only a starting point, a guide, for the ESL composition teachers. The teachers would also need to be competent in the rhetorical frames and organizational patterns which such questions are designed to elicit. Teaching composition would subsequently become no easier; but it would be taught more efficiently, and the frustration level would be enormously reduced. By knowing what kind of writing students would be expected to do, the ESL composition courses could set about training them to meet those expectations. In other words, ESL teachers would have synchronized their teaching with the teaching of the post-ESL teachers and students' transition into a full college-credit program would be much smoother, indeed.

What of all of this is special to ESP? It is the solution to the problems which typifies tenets basic to ESP: 1) a formal recognition of why students are learning English; 2) an analysis of the language problems or requirements which students will face; 3) a theoretical view of ESL as training students to communicate in the modes which are appropriate to their future requirements; 4) a teaching program which trains students to meet their future requirements.

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English For Specific Purposes

SPECIAL ISSUE

A TRIBUTE TO J.R. EWER

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JACK EWER: THE SCIENTIST IN ESP . . . 1

FROM THE EDITOR

J.R. Ewer died in February of this year in a climbing accident in the Andes mountains of southern Chile. Our deepest sympathy goes to his family and friends.

Yet tragic as his loss is, it is the gain that we have because of his life which is the focus this month. This issue is a tribute to Jack for his immense impact on both the ESP field in particular and on the ESL profession in general.

The scholarly examination of his work is left to others. Indeed, Grace Mancill is even now preparing an issue of the ESP Journal with such a focus, other publications will certainly continue this scrutiny. Our purpose instead is a memorial to a master teacher and researcher.

The review of Jack Ewer's accomplishments begins with contributions from two people whose professional and personal association with him went back many years. Odette Boys, for many years his colleague at the University of Chile, his collaborator on many of the articles as well as the Secretary for the recently discontinued ESP/EST Chile Newsletter, offers a broad overview of Ewer's contributions to ESP. Boys cites the areas of teacher training and research as those in which he contributed most. She then outlines the practical implications for teachers of his two seminal research efforts. Guillermo Latorre, writing also from the perspective of student and colleague, offers a warm portrait of Ewer as a person and as a pioneer in the field of ESP.

Our review culminates with the publication of the complete bibliography of J.R. Ewer's works, both published and unpublished. The bibliography is an eloquent testimony to the prolific and profound contribution which Jack Ewer made to the field.

☆ ☆ ☆

JACK EWER - THE SCIENTIST OF ESP

Odette Boys

As one reads through Jack Ewer's bibliography one is impressed by his prolific and uninterrupted contribution to the field After 20 years of work for ESP, he probably managed to tackle its most important areas and suggest practical solutions to all. Of these, possibly the two to which he devoted more attention were research into language features of EST and specialised teacher-training. In this small contribution, an attempt will be made to describe and see the practical classroom implications of his research, an area of possible interest to a large number of ESP practitioners for whom his work may have understandably gone unnoticed amidst the proliferating world ESP literature.

In order to appreciate this research, a short note regarding the man behind the work is called for. Jack Ewer, like other great ELT thinkers/practioners of this century, e.g. Harold Palmer, joined this profession without having received previous instruction and training at a university nor having had a professional and/or research degree (Tickoo, 1982). In his case, such initial possible shortcoming was to be amply compensated by an extremely unusual experience: namely, active participation in several expeditions, including eighteen months in the Antarctic, doing various types of scientific research. Such work would no doubt help to develop in him the methods of thinking and acting of the scientist. To such background was then to be added a later life-long commitment to the EFL classroom in developing countries and a constant search for the practical potential of novel ideas derived from current liguistic theory and ELT thinking All three would come to shape his thinking and particularly his research.

For years, Jack enjoyed doing research and trying to solve the problems such work necessarily involves. He firmly believed language could - and in fact should - be subjected to the same sort of rigorous analysis used with natural phenomena. It is exactly such an approach that may be appreciated in his work where he appears not only as a dedicated researcher but also an imaginative methodologist. Not surprisingly then, these qualities shape his two major pieces of research which were a) the establishment of a 'nucleus' - language of science and b) the identification of the main microacts (functions/notions) and indicators (principal exponents) used in formal oral and written scientific English. Let's take each of these in turn.

The 'nucleus' - language of science, i.e. the most important meaning-bearing items common to any piece of scientific literature, irrespective of subject, was established in the sixties making use of current linguistic theory at the time. Such 'core' - language was obtained 'for the most part on a scrutiny of more than three million words of modern scientific English' (Ewer & Latorre, 1969:ix) with a sample covering the main broad areas of science and technology and consulting different types of literature such as university textbooks, professional papers and articles, scientific dictionaries, semi-popularisations and instruction manuals. Later, in the mid-seventies, incorporating novel ideas emanating mainly from the Council of Europe work, a second and possibly more important research project was begun. This one led to the establishment of the main microacts (notions) and indicators (exponents) of formal scientific English. Results in this case were obtained from the analysis of a large number of university textbooks and lectures at graduate and undergraduate levels and articles appearing in professional journals. Again, the main areas of science and technology were consulted.

These two pieces of research understandably employed different methods of language analysis: the first analysed it from a mainly structural point of view whereas the second used the now more fashionable notional/functional viewpoint. In spite of this, the results obtained have interesting features in common. For example, both established the existence of a 'nucleus-' or 'core-' language shared by all EST disciplines, including the social sciences. Next, the results obtained in either case represent the language which is predominantly used in the types of discourse consulted and which consists of only a fairly limited amount of language. In fact, how small it is can probably best be illustrated through an example taken from the second and more recent project. Here, it was found that oral and written formal scientific English uses around 90 main microacts (including antonymic ones as well) and that all these are expressed through just over 600 lexical and 50 grammatical indicators. With such information at hand, teachers now have at their disposal research-based findings which tell them exactly which are the items of language their students need to learn. This important fact will surely please EST teachers, particularly in developing countries, as these students generally need to learn this language right from the very beginning.

Having determined the main microacts and indicators for formal EST has important implications for various inter-related fields. Thus, apart from its projections regarding textbook analysis, student evaluation and further ESP/LSP research, which have already been pointed out (Ewer, 1981:ii), it has at least one more direct practical application in the programming of EST courses. Let me explain the latter. With these findings, the difficult task that programme organisers have had of arranging different courses for a wide range of specialist subjects and types of students can be facilitated as these results indicate that an initial grouping together of students belonging to different EST specialties is not only possible but in fact essential. While students are thus grouped, they can learn this shared and essential common language background, and then later, once it is already learnt, they can then be separated in order to learn the specialised lexis of their particular subjects and that of associated areas of study as well. In other words, instead of streaming students from the very beginning into an often large number of specialist courses (as it seems has been the norm in many developing countries at least), they may all be grouped together until this shared language is thoroughly mastered. Such an arrangement would surely be of benefit to the students concerned and help relieve programme organisers of many timetabling and staffing difficulties.

The preceding example of a practical application derived from basic research has here been given as a small illustration of one of the most remarkable qualities Ewer's research had: it led to the direct improvement of working conditions, and, in this particular case, the learning of EST.

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J.R. EWER - A BIBLIOGRAPHY

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2. Determining the English of scientific and technical instructions. Results of this project and its teaching methodolgoy are published in an article (see B.8. below). Co-author: E. Hughes-Davies.

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G. Unpublished Handouts Used in EST/ESP Teacher-Training Courses

These include language materials (excluding exercise materials) and explanatory handouts on the theoretical background to EST/ESP teaching. They have been organized around different subject areas.

1. Language Materials

   On 'nucleus'-language of EST:

   English-Spanish versions:
   - Basic dictionary of EST (11 pages)
   - Main structural words and phrases in EST (4 pages)
   - Main prefixes and suffixes used in EST (2 pages)
   - Main structures used in EST (2 pages)
   - List of main items used in scientific and technical instructions (6 pages)

   English versions of:
   - List of basic communicative concepts (microacts) used in formal scientific discourse (articles and lectures) (1 page)
   - Some communicative operations likely to occur in vocational English (2 pages)

   Others:
   - Samples of different registers of English (2 pages)
   - Samples of EST writing (2 pages)
   - Samples of vocational English discourse (4 pages)
   - Scientific and vocational English samples of parallel registers in Spanish (2 pages), co-author: O. Boys

2. Explanatory handouts:

   On language varieties:
   - EST 'core'-language diagram (1 page)

   On needs surveys:
   - Questionnaire for establishing community needs (2 pages)
   - Job analysis form 'A' (activities) (1 page)
   - Job analysis form 'B' (microacts and language) (1 page)

   On training required:
   - Specifications for a co-ordinated programme in EFL for science and technology students (2 pages)
   - Sample matching of jobs, activities, knowledge/abilities required (1 page)

   On syllabus design:
   - Integrated programming for EST (4 pages)
   - Programming: general principles and processes (1 page)
   - Programming for EST: matching the activities which involve the use of English with the knowledge and abilities required to carry them out (1 page)

   On methodology and materials preparation:
   - On Instructional English: Micrometer gauge experiment (2 pages), Measurement experiment (2 pages)
   - CVUs: the preparation of questions, test passages and projects (2 pages)
   - CVUs: a list of CVUs on scientific, technological and technical English (1 page)
   - Hints on preparing questions for speed-reading materials (1 page)
   - Some guiding principles for the preparation of supplementary exercies (8 pages)

   On EST teacher-training:
   - EST teacher-training course - examples of how the themes and activities and their interconnections are built up (2 pages)
   - List of journals and newsletters of interest to EST teachers (2 pages), co-author: O. Boys.

Kindly address any enquiries on the above to:

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Casilla 16085
Santiago 9
Chile

J.R. EWER: THE PIONEER

Guillermo Latorre

Jack Ewer died last February while climbing Osorno Volcano in the Andes of southern Chile. Although he did all of his work in that country, he achieved an international reputation as a leading ESP expert. His contribution covered all aspects of the field, from classroom methodology, administration, and teacher training, to testing, materials development, and analysis of technical and scientific discourse.

Beginning in the 1960's, he was the originator of one of the first ESP operations in the world at a time when the idea was not even a glimmer in the theoretician's eye. Among his many contributions to the country he served so well was the preparation of a whole generation of EFL/ESP teachers and professors, whom he imbued with a sense of purpose and of pride in academic achievement. At the time of his demise, he was engaged in research into scientific texts which is certain to have a deep influence in the evolution of ESP.

Those who had the privilege of working with him can testify to his unflagging energy and enthusiasm even in the face of contingencies that would have discouraged most ordinary individuals. He was always available to anybody who sought his sound advice, being invariably generous with his time and creations, without the least concern for his own personal gain.

On the private side, he was a man of many talents, an explorer in four continents, a geologist of the highest amateur standing, a fascinating conversationalist. Although tragic, his death in a climbing accident is somehow symbolic of a person who always aspired - and inpired others - to high professional and personal goals.□

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English For Specific Purposes

KATHRYN MICHAELS, EDITOR
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FROM THE EDITOR

ESP receives increasing recognition as a major force within ESL. Yet with the increased influence, the need--indeed the responsibility—for rigorous scholarly examination increases.

To further this current examination, as well as to foster as yet undone analysis, the 1982 bibliography has been classified into four general categories and then further subdivided within each category. This bibliography is a tentative beginning, and as such, must be viewed with two qualifications. First, assignments are quite subjective, and are more so for some entries than others. Second, all assignments are currently single entry, though our eventual goal is to cross reference the holdings in order to develop an index.

The mandate of the Clearinghouse continues to be the collection and dissemination of ESP literature. Yet, it is a charge which cannot be fulfilled without the involvement of those in the field. We encourage you to submit both new articles and reprints of already published materials. Those previously published elsewhere will be disseminated when permission to reprint has been authorized from the involved parties.

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GENERAL DISCUSSION OF ESP AS A THEORETICAL LANGUAGE APPROACH (INCLUDES ESP DEBATE)

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Drobnic, Karl. "Outside Linguistics: ESP as Historical Response" .80(d) 1.20(f)

Ford, Jerome C. "What Technical English is About" .70(d) 1.05(f)

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Ryan, Maurice. "Towards an Accurate Assessment of the Speaking Ability of Foreign Technology Students at University Level" .60(d) .90(f)

Stark, Julie. "A Study of Non-Native Speakers' Academic Performance at Santa Ana College" .95(d) 1.45(f)

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Ferrara, Jonathan, Jonathon Fine, Andrew Cohan, Hilary Glasman, and Phyllis R. Rosenbaum. "Reading English for Specialized Purposes. Discourse Analysis and the Use of Student Informants" .85(d) 1.25(f)

Hepworth, George. "A Functional Description of the Discourse for the English for Science and Technology" 4.35(d) 6.95(f)

Lotte, Charles W. "The English Used in Lectures to Students of Engineering" 9.25(d) 12.80(f)

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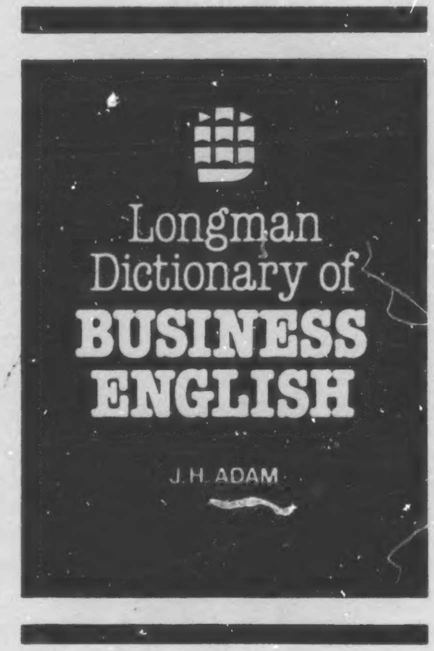

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English For Specific Purposes

SPECIAL ISSUE
LEGAL ENGLISH I

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There will be two issues of the Newsletter devoted to Legal English. The first contains backbackground information, particularly on the Legal English literature, and one paper on Course Design for English for Academic Legal Purposes (EALP). The second issue will contain five articles illustrating approaches to the teaching of Legal English.

INTRODUCTION

John Swales

Until recently, English for Legal Purposes (both Academic and Professional) has been a relatively untitled and uncultivated corner of the ESP field. We do not need to look far to see the reasons for this neglect. First, the market is very small - or at least it has up 'till now been perceived as being so by the marketing departments of the major ELT publishers. For instance, in the middle seventies Arnold Spencer and I hawked around several Units of an EALP course we had developed at the University of Khartoum, Sudan; although the manuscript was received politely enough in critical terms, it was consistently turned down because there was "no market". I dare say others have similar tales to tell.

Secondly, the study and practice of the Law tends to be an activity coloured by a particular country's historical, political, religious and cultural development rather than an activity - as we find in Science or even Economics - of an essentially international character. To quote W.H. Auden's poem Law like Love (the first seven verses of which make, incidentally, an excellent input into many an EALP syllabus):

> Yet Law - abiding scholars write:
> Law is neither wrong or right,
> Law is only crimes
> Punished by places and by times
> Law is the clothes we wear
> Anytime, anywhere
> Law is Good morning and Good night.

Third, the typical ESP practitioner (with perhaps previous experience in EST) can find his tentative moves in the direction of Legal English to be more problematic than he had imagined. He finds he has to learn quite new ways of thinking. He finds himself in the company of professionals who have both great skill and interest in language and who may well feel as a consequence that "legal English is too important a matter to be left to the English teacher". He finds that academics from fields outside the Linguistic Sciences in which he has been trained, have long-standing and legitimate interests in legal language, and he may well ask himself if he has the time and interest to study the discussions of legal language provided by philosophers, anthropologists, sociologists and so on. And when the ESP practitioner does apply his techniques of linguistic analysis to legal text he tends to find that the sheer length and complexity of the sentences he encounters renders his analytic procedures inoperable.

We can see then that over the last decade or so EALP and EPLP have been delicate and somewhat undernourished growths: few of us have been interested, our legal environments have been very different, information and insight has not been communicated, there is no authoritative 'starter' ESP textbook or linguistic description, our relationships with those responsible for legal training have tended to be defensive and under-confident, and our knowledge of inter-disciplinary work in the philosophy, anthropology and sociology of Law to be limited.

However, in the last year or two interest in the teaching of Legal English has definitely increased - and again for a number of reasons. For some time now Service English teachers have been reacting to the fact that many Engineering courses (Engineering being, of course, an ESP mainstay) in their post-introductory stages include an increasing number of "Management Components" as they progress towards the Master's level, and that it is these

(Continued on Page 8)

LEGAL ENGLISH - A BRIEF REVIEW OF RELEVANT LITERATURE

V.K. Bhatia

Of all the specialist disciplines that an ESP practitioner may be called upon to design and teach language support courses for, perhaps in none of them is the need to adopt a subject-specific and narrow-angled approach more obvious than in Law. This is so primarily because the relationship between the language used in Law and its content is exceptionally close. Lewis (1972: 314) in his introduction to the symposium on 'Law, Language and Communication' rightly points out that 'much of a law student's confusion, bewilderment and frustration arises because he is not being taught law only - he is being taught a foreign language as well'.

Unfortunately, however, the place of language skills has rarely been adequately prioritized in legal education. Although, from time to time, there have been some serious concerns voiced by the members of the profession about the inadequate linguistic ability of a great majority of law students to understand and express themselves in legal settings, law teachers have consistently been 'rudely jolted . . . at the inability of so many law students to write and express themselves in clear, concise and elegant prose' (Mehler, 1960-61: 201). Such a lack of full competence in the language will tend to reveal deficiency not only in legal composition but also in the students' capacity to process and understand legal texts.

Language training in legal education has generally been considered the responsibility of the law teacher who, preoccupied as he always is with imparting the knowledge of law, rarely finds the time, or has the means to treat it with even half the seriousness he attaches to his primary preoccupation. The result of this neglect of the learning and teaching of language skills is that learners are generally left to learn these skills in 'the school of experience'. Linguists, applied linguists and language teachers must also share the blame, as there have been only a few and rather scattered attempts to research and understand the nature of legal language, the findings of which might be of some assistance to those who are called upon to design and teach legal communication courses to the learners of law who are pursuing their legal education through the medium of English, whether as native speakers or not.

LEGAL LANGUAGE

The term 'legal language', as generally understood, is insufficiently precise for the kind of applied linguistic purposes that an EALP practitioner is concerned with. The term encompasses several usefully-distinguishable sub-varieties in terms of the communicative purpose they tend to fulfil, the settings they are used in, the nature of the communicative event in which they are used, the activities that the participants are involved in, and the background knowledge that the participants bring to the communicative situation. These differences are reflected in the syntactic, semantic and pragmatic resourses that are employed to achieve communication in various legal settings. In considering legal writing and its various sub-varieties for EALP, one can make a useful initial distinction between the spoken and the written varieties which may be further distinguished in terms of the setting in which they occur.

Variation in Spoken Legal English

One may broadly distinguish three types of legal settings in which spoken Legal English is used: (i) pedagogic, (ii) academic and (iii) professional.

(i) Pedagogic Setting - Classroom Interaction

The most obvious form of communication that takes place in a pedagogic setting is the one in a law lecture class. Unfortunately, there is no attempt known to us to study and analyse law lectures.

(ii) Academic Setting - Colleague-Colleague Interaction

The colleague-colleague interaction can take place either in a seminar or a conference situation where colleagues with a similar background knowledge interact either formally through paper-presentation or informally after or between the papers.

Another dimension to a colleague-colleague interaction may be added in a situation where participants come from either different cultures as in international legal gatherings or different specialist backgrounds as in interdisciplinary conferences. An interesting study of the factors which may influence the nature of communication in multi-cultural legal settings is reported by the American Association of Law Schools (Carl: 1973). The report focusses on the features of verbal communication which are either culturally determined or subject-specific, like technical terms, voice quality and spatial relations, etc.

(iii a) Professional Setting: Lawyer-Client Consultation

There are at least three major factors which influence and shape the nature of communication in a lawyer-client consultation and it is more than likely that they are reflected in the use of language and the tactics employed in such an interaction. Firstly, the most significant aspect of this consultation is the unequal relationship that exists between the two participants. One is a specialist and professional and the other is a layman, and they are bound by a common interest in the case, the layman because of his involvement, the professional for the sake of his reputation, career and finances. Secondly, the specialist's purpose in the communication is to seek relevant information (most of which has legal significance) from his layman client in easily-understandable non-technical language, and which needs, in addition, to be persuasive enough to make him volunteer such information. And, finally, the specialist has not only to obtain this information but also to reassure his client in a way which inspires confidence in his ability as a professional. This lawyer-client consultation seems to parallel other consultation settings such as where a doctor and his patient communicate with each other. Both consultations seem to have common factors and, perhaps, common problems.

Avrom and Lorraine Sherr (1980), encouraged by their work on doctor-patient communication, decided to study how far successful communication is achieved in a lawyer-client consultation, especially in their first meeting. Their research at the University of Warwick, England, has indicated that lawyer-subjects in their consultations with client-subjects failed 67 percent of the time to obtain and record relevant information. Further, 71 percent of the lawyer-subjects even failed to put the client's problem into a properly defined legal category. Similarly unhappy figures indicated that the lawyer-subjects failed to conduct a series of essential tasks in their interview with the client-subjects, such as those designed to make sure that their clients had understood and agreed with a particular course of action suggested by them. Findings such as these are strong indications of the need to look into the problems involved in such interactions and to suggest remedial measures to overcome such problems.

(iii b) Professional Setting: Courtroom Interaction

The most commonly known interaction within this professional legal setting is the one which takes place at the time of examination and cross-examination of witnesses by the two attorneys. But this is a complex multi-party setting within which a number of different interaction-types take place, each having constraints of its own and, perhaps, characteristic features also. Sometimes an interaction might take place at various levels simultaneously. The opening statement by the prosecuting attorney, for example, is addressed to the court, i.e. the presiding judge and the juries at the same time, both coming from two different backgrounds, one the specialist and the other the laymen. The statements made at this stage are friendly in tone but firm in effect. The subsequent examination of witnesses is generally characterized by a kind of hostility which is displayed in terms of the control and coerciveness that an attorney exercises over the responses he tries to elicit from a witness, especially belonging to the opposition. Danet and her associates (1976a, 1976b), adopting a theoretical orientation from the speech act theory of Austin and Searle, have reported a series of studies of the role of language in the legal process. Among their many findings, the one which may be of particular interest to the practitioners of EALP is the relationship they have discovered between certain features of questioning and the degree of coerciveness that is exercised in the examination and cross-examination of witnesses. They have isolated six features of questions which they found in their study to carry coerciveness. They include features like falling intonation, yes/no questions as against more open-ended ones, grammatical forms like the declaratives and the negatives, etc.

Whereas Danet and her associates have concentrated on the courtroom interaction from the point of view of the attorneys, O'Barr and his associates at Duke University have produced interesting results on how subtle differences in the speech styles of witnesses may influence the outcome of a jury trial (O'Barr and Conley: 1976; Lind and O'Barr: 1979). Their main interest in the courtroom interaction has been to study how certain features of this interaction are viewed and evaluated for the communicator's ability to make valid and trustworthy statements as indications of his social attractiveness, social dynamism and convincingness. Their findings may have significant influence on the linguistic training of future trial attorneys, especially where they identify the 'power' speech mode characterized by the use of features like 'intensifiers', 'empty adjectives', 'polite forms', 'gestures', 'hedges', 'rising intonation', etc., which Lakoff associated with feminine speech, and the 'powerless' speech mode characterized by the absence of the above features. They claim that the 'power' speech mode is seen as less convincing than the 'powerless' speech mode in the courtroom interaction. They also provide evidence for the age-old recommendation of the trial tactics manuals to allow their own witnesesses some freedom to use narrative answers and to restrict opposition witnesses to brief answers. Following the social attribution theory they claim that 'when differences occur in reaction to narrative and fragmented testimony, they are in the direction of more favourable evaluations of witnesses giving narrative answers' (Lind and O'Barr: 1979).

Adopting a different perspective and taking inspiration from the works of Garfinkal, Sacks and other Conversation Analysts, Atkinson and Drew (1976) and Atkinson (1979, 1981) have reported interesting insights into court procedures. True to their ethnomethodological orientation, they refrain from making statements about people's understanding and interpretation. However, their studies provide for more fascinating insights into courtroom interaction than most of the practical Trial Manuals which simply stress the need for attorneys to speak with clarity, simplicity and succinctness without making explicit any rules of procedure to achieve these ends. Atkinson and his associates have interesting examples of the use of some of the verbal and non-verbal strategies that are normally employed to control witnesses, to negotiate blame, etc., in courtroom interaction.

Another aspect of courtroom interaction which has been researched is the comprehension by the jury of what is known as 'standard jury instructions'. This takes place at the end of a trial, either before or after the two attorneys give their closing arguments, when the judge tells the jury the law. Charrow and Charrow (1979), in their study of the comprehension of standard jury instructions, discovered that such instructions were not well understood by the average juror. They also isolate specific linguistic features that are largely responsible for such an incomprehensibility. Their studies provide evidence for the hypothesis that certain grammatical constructions and features of discourse were largely responsible for comprehension problems and not the legal complexity of such instructions.

Yet another interesting aspect of courtroom interaction is the one known as plea-bargaining which seems to have its own rules and procedures of interaction. Philips (1979) reports how judges' use of syntactically-variant forms in their questioning when taking guilty pleas from criminal defendents influence the sequential structure of the discourse that follows.

This brief survey of some of the works on spoken Legal English points not only to the multi-faceted nature of legal interaction in the courtroom but also, as a consequence of that complexity, to the advantages to be derived from a multidisciplinary approach.

Variation in Written Legal English

An important aspect of the academic as well as the professional training of a lawyer is not only to be able to read and process various varieties of written legal language but also to be able to write at least some of them with a reasonable amount of clarity, preciseness and unambiguity. Broadly speaking, one may distinguish three major types of variation in written legal English.

(i) Academic Legal Writing

In this context it is possible to make a further distinction between what one may find in law textbooks, which have a strong instructional orientation and what one finds in legal journals, which have an informational orientation. In our EALP courses, we are likely to be more concerned with law textbooks than with legal journals.

One may, with some justification at least, argue that textbooks in law may not be very different from those in other specialist disciplines, say, in social sciences or even in physical science, because of a common instructional communicative orientation. However, it may well be the case that the special methodological and conceptual features of a particular subject discipline require a different treatment of various commonly-used communicative devices. There is already some evidence that a 'commonly identified communicative act such as defining can have different discoursal functions in different academic subjects such as Science and Law' (Swales, 1981).

Textbook writing in law also differs from that in other subject disciplines in the way legal statements are made and supported by bringing in relevant case references. Swales (1982), in studying the role of cases in legal description and of explanation in textbooks, points out that as the texts move from description to discussion, there is a steady increase in the number of cases that are referred to. He also studies in some detail the role of case references in legal arguments and identifies three major types of case references and the discourse functions they perform in legal arguments.

Recent work at the University of Aston (Wickrama: 1982) indicates that even within a particular textbook one may come across a significant variation in the rhetorical structuring of legal discussion depending upon whether the point in law derives from precedents set in the case descriptions or from some aspects of legislation enacted by the legislature.

(ii) Juridical Writing

In juridical writing we may include two kinds of documents: legal judgements and legal cases. Since precedence plays an important role in legal arguments and, also, in legal decisions, legal judgements and case-descriptions inevitably form a major part of a law student's reading list (Williams: 1973).

Cases and judgements display a typical discourse organization (Bhatia: 1979). Almost all case descriptions begin with the facts of the case, followed by the argument of the judge, which may include a discussion of earlier relevant cases which have a bearing on the one being considered and the rules of law, if any, applicable to the case. Then comes what might be called the principle of law which is deducible from the case description and which could be laid down by the judge for application to later cases of similar description. And, finally, comes the judge's decision. As it is, juridical writing differs from other writings in law not only in the way it is discoursally organized but also, and perhaps more significantly, in the tasks that law students are required to perform on it. A major concern of a student of law when reading law cases is not to understand them and then answer comprehension questions on them but to appreciate whether a fact in the case is 'material', whether an earlier decision or a rule of law is 'relevant', whether a particular case is distinguishable from another, and to deduce what in legal terminology is known as the 'ratio decidendi' of the case. And the task of an EALP teacher is to ensure such an appreciation. Any failure to perceive these specialized reading purposes might lead to confusion on the part of the student and will make his task more difficult (White: 1981).

(iii) Legislative Writing

Legislative writing includes not only the instruments of primary and subordinate/delegated legislation, i.e., acts of parliament, and statutory instruments but also other legal documents like contracts, agreements, wills, insurance policies, etc. Of all the written varieties of legal language, this undoubtedly is 'the hard core' where every attempt is made to write not only clearly, precisely and unambiguously but also all-inclusively.

Although legal language in general, and legislative writing in particular, seems to be a rich source of particularly interesting liguistic data, attempts by linguists to unravel the mysteries of legal drafting have been rather few. Apart from the efforts of Crystal and Davy (1968) and Spencer (1980) to provide the distinctive flavour of legislative writing, there have been few serious efforts to understand why legislative documents are written in the way the are. Gustaffsson's (1975) attempt to study the complexity of legislative writing is an important step in this direction but her approach restricts her findings to the level of surface generality. A more recent Scandinavian attempt to understand some aspects of this writing is that of Gunnarsson (1982) who has studied the functional comprehensibility of a Swedish law text. Motivated by her attempts to suggest measures to improve communication between ordinary people and official bodies, she analyses the content of laws in the light of two main functions which she calls the action-directing function (with ordinary citizens as the main addressees), and the control function (with lawyers in court as the main addressees). Although her primary concern is to work for greater comprehensibility of legislative texts, the main thrust of her work is on suggesting improvements in the drafting styles which may facilitate such a comprehension.

Another recent attempt to study legislative writing is that of Bhatia (1982b), who takes as a starting point his wish to provide English support courses to those learners of law whose first language is other than English. The investigation, making use of the services of a parliamentary draftsman as specialist informant in a way analogous to that discussed by Selinker (1979), focuses on the cognitive structuring underlying the legislative sentence by exploring the interplay of the main provisionary clause and the surrounding network of qualifications. The attempt not only gives insights into the thinking underlying such legislative documents but also indicates what kinds of psycholinguistic problems the reader might face in processing and understanding them (Bhatia: 1982a).

On contracts, agreements and insurance policies, there seems to have been little work done so far. The only work that has come to our notice has been the attempt of Shuy and Larkin (1978) who discuss the simplification of some features of an insurance policy document and, without recommending any simple formula for rewriting policies, they advocate the need to adhere to the principles of ordinary discourse. On the matters of rewriting legal and public documents, a significant amount of work has been done at the Medical Research Centre by Wright and her associates (Wright: 1971, 1978; Wright and Reid: 1973) who strongly favour the use of a number of algorithmic devices such as the tree diagrams, flow-charts, etc., instead of a flowing prose in the rewriting of public documents. The work being done by Redish and her colleagues at the Document Design Center, Washington, D.C. on 'Document Design Project' may also be of use to those EASP course designers who are interested in legislative and other public documents.

The foregoing account of the various settings in which a lawyer needs to be able to operate and the kind of language he may be required to use and understand indicates that the input to EALP courses must differ considerably from that of the other ESP courses, not only in the kind of language that would be employed in such classrooms but also in the type of activities that the learners would be required to perform in EALP classes. The constraints on interaction in various settings are different and so are their purposes and modus operandi. Each interaction types seems like a specialist game with its own rules which are not available to non-specialists but have to be learnt the hard way.□

LSP AND METHODOLOGY: SOME IMPLICATIONS FOR COURSE DESIGN AND IMPLEMENTATION IN EALP

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There are several reports (e.g. Ewer 1976; Robinson 1980; Chambers 1981) pointing out the fact that the SP of LSP is frequently interpreted as being essentially a *content* decision, which only marginally and secondarily influences method of implementation. Sinclair in particular (Sinclair 1980) has noted that "the typical manifestation of LSP is a lesson built around a text of a specialised nature". Warnings about the implications of approaching language via *use* are not uncommon (e.g. Widdowson 1978 and 1979; Breen and Candlin 1980; Sinclair 1980; Bowers 1980; Johnson 1982), most stressing the *interdependence* of what and how, content and methodology. Complexity is added by findings such as those of Swales (1981) that,

> "it may turn out that the supposed uniformity of such acts as defining, classifying, relating cause and effect, describing properties, indicating probability and so on is in fact skewed both functionally and formally by the special methodological and conceptual features of a particular academic subject . . . "

and of Philips and Shettlesworth (1978) that,

> " . . . the gap between classroom discourse (in any normal classroom) and the target discourse of the learning objective is perhaps surprisingly wide".

The LSP course, therefore, as an attempt at a maximally effective solution to a well-defined language learning problem, must seek to establish a set of conditions conducive to both appropriate language use and efficient language learning. This would appear to entail some prior analysis (to a degree determined by resources available) of:

1. Sample instances of use, in terms of what needs to be done with what type of language;
2. Key variables within the immediate learning environment which might influence both the types of discourse and the types of learning and teaching that could feasibly occur.

These analyses then need to be linked to established principles of language learning, as an activity in its own right, resulting in an explicit course rationale which can be converted into a structured sequence of learning tasks. Less abstractly, it would seem desirable for the rationale of LSP course design to take into account:

1. The methodology as well as the discourse of anticipated domain of use, for example, the types of (mental) process that learning and using law require, as well as the types of language realized by those processes.
2. The expectations concerning appropriate patterns of learning and teaching held by all relevant parties, e.g. the learning institution, prospective students and the language teachers, plus the methodological implications of the learning environment and the resources available.
3. The methodological implications of developing a specified range of proficiency in a particular foriegn language, in this instance, English.

Bowers' observation (Bowers 1980) that the metalanguage available for description of methodology is currently very weak must make any steps into this field cautious, but need not, as Widdowson points out (Widdowson 1978) preclude the attempt. The following extracts from sample observations made at the University of Jordan are offered as an example, with the following caveats: that much of the information was collected impressionistically through observation and discussion, and thus cries out for some more rigorous validation, and, although the information did allow a course rationale and structure to be put together which appeared satisfactory and is certainly open to evaluation, an opportunity has not yet arisen for adequate evaluation to take place.

One rather obvious feature of the way students (undergraduate students of Law in an academic EFL environment) were expected to handle language, both as students and as prospective members of the legal profession was in legal documentation (contracts, acts of law, etc), the priority accorded to the form of language in itself. This gives an interesting slant on the fairly common ESL practice of language sensitization, and accorded well not only with the expectations of the selected learning group concerning the content of language lessons (essentially - and presumably deriving from previous learners' experience - "grammar"), but also with the area that language instructors felt most comfortable handling - formal accuracy. Although students valued "relevance" in the language course, the prospect of requiring instructors, whose control of English covered the domains of general educated social use, to handle samples of use well outside normal domains (texts on international law, company contracts, etc.) was sufficient to preclude (matters of principle outside) initiating any task with inspection of a sample legal text. Instead, straightforward language exercises of variable content were chosen, which required students to identify, explain and then rectify ambiguity. This material took a variety of forms ranging from "simple" sentences (the general proficiency level of students could be characterized as "intermediate") of the "The shooting of the hunters" variety, much beloved of Chomsky, through short narratives, which, for example, had unclear patterns of cohesion, or where a "trick" outcome was the result of deliberate but unobtrusive lexical substitution, leading up to an assignment where students selected their own text for explication as to why it was or was not ambiguous, for class presentation. Teaching input was variable, depending upon problems identified by teacher and students, since instruction as such was less the purpose of the task than developing an attitude.

The important role of memorization in legal study plus the prevalence of rote memorization as a study mode suggested that students be given tasks aimed at developing long and short term memory, and that this facility be utilized for certain aspects of language study. Thus, for example, Esser's finding (Esser

1980) that semantic connection between words improved recall was combined with the "repeating" characteristic of certain types of legal text ("person or persons", "know or believe", "purpose or intent", etc.) as a basis for vocabulary building exercises, utilizing also such work as Spencer's on legal collocation (Spencer 1975).

Similarly, the fact that students were developing the ability in their legal studies to apply their knowledge of law to experience was partly used as a basis for developing control of language form, in exercises where, for example, students used standard descriptive grammars to identify and correct inaccuracies in language samples. A generalizing and abstracting procedure was added to this type of exercise by requiring students to identify distinguishing features of form or function within the sample.

One final example of the way aspects of method were used in arriving at course activities can be taken from an identified need that law students have (although this is probably more important for members of the legal profession) that is, the ability to control the type of information elicited from an interlocutor. Exercise types ranged from simple formal manipulation to elicit a specified piece of information up to providing students with an inadequately specified (frequently language - i.e. not law - based) task. Hopefully, appropriate conditions for use were thereby set up without entering the realm of simulation. (As an aside, a form of simulation was used in having fairly frequent tests and mock examinations, which were prodigious provokers of question, comment, opinion and objection.)

Probably not clear from these few examples are the general principles used for structuring the course. On the basis of the analysis of the learning context, a coherent and fairly firm course structure was felt to be necessary, and was based, essentially, on:

- type of learning mode, essentially leading from more familiar recipient of information/rote memorization activity towards the more open-ended problem-solving tasks;
- the type and dimensions of task and text to be handled (both productively and receptively), e.g. familiarity of topic to learner, density of information, clarity of structuring of information, clarity of "marking" of information, predictability, degree of contextual support, degree of delicacy of task, degree of independence required (access to information sources, etc.);
- degree of rigor of criteria for acceptable performance of task (accuracy, appropriacy, etc.);
- skill focus and mix;
- special features of the learning environment which were varyingly exploited, including e.g. the degree and type of risk involved in performance, degree of attention paid to language form, degree of student reliance on external authority or internal criteria.

Overall, it can be said that the course emphasized certain aspects of the competence required to carry out specific target tasks, but did not attempt to import those tasks directly into the learning context. In this respect, it was more context-sensitive than content-sensitive, although class activities frequently did build up into some direct interaction with legal text. It did not, however, force the language instructor to become familiar with an extraordinary domain of language use, but did require flexibility of method. This was seen to be a positive feature, developing a teacher more sensitive to learner needs rather than a specialized teacher of legal English, thereby, hopefully, influencing probably the key variable in the learning/teaching process, that is the quality of the interaction between teacher and learner.

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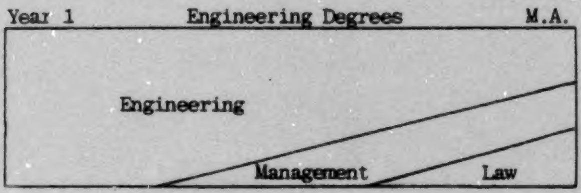
components that typically prove the most difficult for students with a limited command of English; they are "new subjects", they require literacy rather than numeracy, and they are embedded in the elaborate terminological matrix of the Social Sciences. Further, as these Management components develop they themselves become involved in areas of legislation such as Industrial Relations, Contract Liability and Safety Regulations (see Figure 1):



Thus, one reason for the new interest in EALP is a wish to offer some assistance in the problematic "law corner" of many Engineering and Management degrees and training programs.

A second reason for the increasing attention being given to Legal English is the perhaps belated recognition of the educational changes that have been taking place in Third World countries traditionally offering a somewhat elitist English-medium University education. The rapid expansion of recent years has led to mounting concern about the oral and written English-language communicative ability of University entrants with an ESL background. We have thus seen Communication Skills Units springing up in many areas (especially in Africa) and concerned more with such advanced language requirements as reading legislative documents and oral advocacy rather than with the established EFL concerns of writing laboratory reports, etc. As a result, a number of tertiary institutions are actively developing EALP programmes within the Faculties of Law themselves; in Malawi and Tanzania; in Jordan and Sudan; in Malaysia and Sri Lanka.

The third main reason is less direct but equally important, and derives from the questioning of the rationale underpinning legislative language and court procedures raised by the advocates of 'Plain English' in the USA, Britain and Scandinavia, and by other groups concerned with reducing the disadvantages experienced in legal disputes by the less educationally-privileged. Both the new interest in the forms of legal expression and the consequent increase in research funding generated by these developments are beginning to have beneficial effects of various kinds on EALP and EPLP work.

There is, of course, much still to be done, but what has been done is outlined in more detail in the next section of this issue.☐

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LEGAL ENGLISH II

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This issue on Legal English is rather more practical than the first. It opens with two highly-contrasting articles on the use of cases in EALP; there follows an article on reading legislative prose and the curriculum outline of an EALP course. The issue closes with an approach to the teaching of legal terminology.

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LEGAL CASES - WHY NON-NATIVE STUDENTS ARE BAFFLED 1

LEGAL CASES - WHY NON-NATIVE STUDENTS ARE BAFFLED

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Non-native speakers of English are under a particular handicap if they study law. The basic material of their subject is almost entirely linguistic. Indeed, legal definitions ('intent', 'the course of employment', 'negligence') differ from semantic distinctions only in being more rigorously delimited.

In building up an appreciation of these distinctions, students of law in English-speaking countries need to study decided cases[1], not necessarily word by word, and to build up from them a holistic picture of particular fields of law. These cases are reported in law reports, abbreviated in case-books, and summarized in digests and textbooks. Very few non-native students actually read and understand the cases at first hand. One reason for this is that without training such a task is too difficult.

Many of the difficulties encountered, if not all of them, are within the province of ESP. Difficulties arise at several levels, often interacting. A student who misreads "A slender link between the correspondents will not justify a defence of privilege" as "A slander link . . ." will soon realize his mistake if other factors in comprehension are present, but not otherwise.

What are these factors? It is contended that it is not necessary to know what all the skills are in a particular learning situation (and still less whether these skills are discrete, or whether they merge into a cline). For ESP purposes, observation of the actual areas in which students experience difficulty is a far more powerful means of determining what skills need to be taught.

Error analysis is commonplace in the productive skills. It is less so in the case of receptive skills. Analysis of what makes one case harder to understand than another is more difficult than analysis of errors in writing. Judgments which early prediction on linguistic grounds suggests will be easy to understand turn out to have hidden traps and vice versa. To explore every possible level of error would be tedious to both the investigator and the students concerned.

My own studies of student difficulties have used the related writing skill of summaries made by learners followed up by individual discussion as a powerful tool for evaluating comprehension - summaries in the traditional form of (i) facts; (ii) ratio decidendi; (iii) a verbatim quotation of 'a sentence or two from the judgment that casts light on the decision' (a useful test of comprehension). Each case has its own particular difficulties, and generalization is fraught with dangers. For the evolution of teaching strategies, though, some generalizations need to be made. These concern the levels at which problems occur.

These problems, in rough order of level, are that students

- cannot see the way a case fits into a general picture of the law - why a case is 'significant';
- cannot recognize which facts are material and which are irrelevant;
- are not familiar with the cultural background in which the cases are set;
- are confused by unnecessary technicalities (e.g. the history of the pleadings);
- cannot find the ratio decidendi;
- cannot follow the rhetoric of the judge's argument;
- cannot handle complex sentence structures;
- fall into grammatical traps;
- are unfamiliar with archaisms, formal vocabulary, the lexical collocations of the legal register and other general vocabulary.

The first two of these problems are not confined to non-native speakers. Foreign learners do have difficulty, however, in forming a holistic view - in seeing the wood for the trees - and are diffident about rejecting facts they have seen in print as being completely irrelevant.

Faults in selecting relevant facts may also be due to lack of cultural background: the tautologies in the headnote to one case[2]: "A milkman was employed by his employers, a dairy company, to go round on a milk float delivering milk to the employer's customers" are not so obvious to a Malaysian as to an Englishman.

The fourth, fifth and sixth faults are due to poor reading strategies. A learner's natural tendency to read every word prevents him fulfilling his workload of cases. Specialized reading strategies are needed. The rhetoric of legal discourse is unusual in the way it reproduces the structure of forensic argument. A very large number of paragraphs follow the pattern: "It is said that such-and-such BUT the court thinks otherwise." It is almost invariable for the ratio decidendi to be in mid-paragraph. One common reading strategy is to read the first couple of sentences of a paragraph and the last. This simply does not work when reading judgments. Students need to recognize to which of a small set of patterns a paragraph belongs. In some, a wise technique may even be to read the sentences in reverse order, if one is merely skimming to find the ratio. Failure to realize that the latter half of many paragraphs represents the judge's own opinion leads to interpretations of cases which are diametrically opposed to what the law actually is. An ability to spot discourse markers effectively is also necessary.

Useful practice material can be constructed around rhetorical units (or syllogisms) of increasing complexity. Consider, for example, the three statements:

> Camels are not kept as domestic animals in England.
> Camels are nowhere found in a wild state.
> Camels cannot be considered to be wild animals.

Requiring students to add different markers to show the structure of the syllogism will direct their attention to the means by which cohesiveness is produced. Subsequently, asking students to produce syllogisms from which a part is missing will direct their attention to the underlying pattern. Care must be taken in practising a passive skill by means of an active one. The analogous writing task that students are required to perform - the answering of legal problem questions (of the 'Advise Alice' type) requires a quite different rhetorical pattern, and students must not confuse the two.

Complex structures predictably cause difficulty. Many judges, as much today as in the last century, deliver judgments where the average sentence length is sixty or seventy words. It is generally recognized that certain types of nominalization, and of complex embedded structures, cause difficulty. 'The true rule is that the master is only responsible as long as the servant can be said to be doing the act, in the doing of which he is guilty of negligence, in the course of his employment as servant.'[3] "Hilton v. Thomas Burton (Rhodes) Ltd. . . . to which I have referred is a case in which the plaintiff failed although the journey was a permitted journey, because he was not able to show that the journey on which he was being carried was a journey which occurred in the course of the servant's employment."[4] Even Lord Denning, whose sentences have a typical length of 10 - 20 words, uses long sentences to explain his reasons. The embedding is only part of the difficulty with these sentences - the repetition (doing . . . doing; journey (4 times)) of lexical items in different structural contexts is very confusing. It is usually suggested that complex sentences of this kind can be disentangled by teaching techniques of clause analysis. In practice, though, it is as much the logical as the grammatical structure that produces problems: the ideas of which 'only as long as' in the first quotation, and 'failed because he was not able to show' in the second are exponents. It is necessary to familiarize students with structures of this kind, which abound in the pages of the law reports.

(Continued on Page 6)

CASE STUDY IN LAW

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The term 'legal English' has a certain off-putting aura; it conjures up images of inordinately long sentences of Proustian complexity (but not of Proustian elegance) full of 'unnatural' syntax exemplified by an endless succession of relative clauses and an abhorrence of pronouns. On top of that, legal jargon is notoriously obscure.

If we confine ourselves to legal documents, such as deeds of ownership, declarations of trust, or even contracts of employment, there is something to support this view. However, as Andrew Seymour, quoting Vijay Bhatia, has alreay pointed out, "in studying legal texts we have to distinguish between the language of law textbooks, that of casebooks and that of legal documents."

One purpose of the present article is to show, largely by example, how the first two of these varieties, and particularly the second, exhibit discourse which is often simple and the opposite of obscure; and which is therefore accessible to the language student of lower intermediate to higher intermediate level. A second purpose is to counter the widely held view that legal subject matter extracted from an alien system of law presupposes knowledge of that system if its legal significance is to be comprehended; to demonstrate that, on the contrary, given a suitably narrow focus, its legal significance may be quite accessible to the foreign language student and provide a meaningful context for the study of legal English. The final purpose is to show how the study of case histories is a natural problem-solving exercise and encourages development of relevant reading skills, notably:-

1. extraction of factual details (perhaps with a view to supporting an argument).
2. discrimination between texts: comparison and contrast of factual details and their legal implications.

Two cases, with important similarities and differences, are considered below. Each consists of a short narrative of the relevant events, followed by an extract from the summing-up by the presiding judge. The whole exercise has been divided into five stages but this does not imply that classroom presentation must follow the order I have chosen here (Stage 2, for instance, could precede State 1). The source book for this material is A casebook in contract law (ed. W.T. Major).

Consider first the following extract:-

STAGE 1

BALFOUR .v. BALFOUR (1919) - Court of Appeal

The defendant was a civil engineer employed in Ceylon. In November, 1915, he came to England on leave with the plaintiff, his wife, remaining until August, 1916, the end of his leave. The plaintiff, on her doctor's advice, did not return to Ceylon with her husband. Before leaving England, the defendant orally promised to give the plaintiff £30 a month until she returned to Ceylon. The marriage subsequently broke down and the plaintiff sued for the £30 a month. The defendant contended that, when the promise to pay £30 a month was made, there was no agreement for a separation, the promise relating only to what was expected to be a temporary separation; that this was only a temporary domestic arrangement and was not intended to operate as a binding contract.

Most of this is narrative of the simplest kind but it is good narrative, containing as it does quite a number of facts, all of which are relevant to a discussion of the case. Furthermore, the events recounted pose no cultural problems - they are as universal as marriage. As for lexis, the strictly legal terms (excluding the title) are few. A passage like this is therefore an easy 'way in' to the subject. And it can be used to train at least one essential legal skill, attention to factual detail. More interestingly, students can be asked to elicit the facts from one another by finding the right questions to ask, e.g.

> What and where was Mr. Balfour's occupation?
>
> Where was he from November, 1915, to August 1916?
>
> Was his wife with him?
>
> Why didn't she return with him to Ceylon?
>
> etc.

The argument for the defence must be clearly understood if the case is to be followed through (see below).

To take the case into the legal realm properly speaking some very basic law must be studied but not much. Since cases are usually picked out by casebook writers to exemplify a single aspect of the law, the legal background is drastically simplified. It is therefore possible to consider a case within the context of a single legal point (or element) which thus provides the necessary legal framework for solving a problem without swamping the basic purpose of study, which of course remains linguistic.

What then about the problem of the diversity of legal systems? How can students be expected to extract and understand elements from a foreign and 'autonomous' system of law? The answer is to choose elements which are universal - hence the choice of contract law. It must surely be true that a contract, whatever rules of interpretation it may be subject to, will contain at least some of the same elements, whether it is made in Kuala Lumpur or in Kuwait, i.e. somebody is going to make an offer, somebody is going to accept the offer, there will be some kind of consideration (see below) and there will be an assumption, express or implied, that the agreement is subject to legal recourse.

The legal problem can therefore be tackled in three stages.

1. How does the law generally interpret a given element?
2. In what way is this element relevant to the facts of the case?
3. (Therefore) how will the law decide and interpret this case?

In the case under study, for example, the focal element is the intention to create legal relations. The following passage (Scott) gives a simple pragmatic definition:-

STAGE 2

If an agreement is to be treated as a contract, it is essential that the parties to it should have intended to enter into a legally binding relationship. When coming to an agreement most people do not stop to think about what they intend, but if asked, most people would say that an arrangement to meet a friend socially would not be intended by them to have any legal consequences. In such a case, therefore, even if there were offer and acceptance and consideration; no action could be brought if one of the parties did not meet as arranged. In business relationships, on the other hand, courts assume an intention to create legal relations.

The essentional points from this paragraph can be checked as follows:-

(True or False)

____ A contract is a legally binding agreement.
____ Social agreements are normally legally binding.
____ Business agreements are normally legally binding.

If Stage 3 is to be completed, the notion of consideration will also require explanation as "something given done, or suffered in return for a promise" without which there is no contract. Students may be asked to give examples of all three.

By now students are ready to consider or reconsider the case from a legal standpoint. Did the couple intend that the agreement should be legally binding? Was there a contract? After thus putting themselves in the position of judge, they can be confronted with the real judge:-

STAGE 3

The defence to this action on the alleged contract is that the defendant, the husband, entered into no contract with his wife, there being agreements between parties which do not result in contracts within the meaning of that term in our law. The ordinary example is where two parties agree to take a walk together, or where there is an offer and an acceptance of hospitality. Nobody would suggest in ordinary circumstances that those agreements result in what we know as a contract, and one of the most usual forms of agreement which does not constitute a contract appears to me to be the relationship of husband and wife. It is quite common, and it is the natural result of the relationship of husband and wife, that the two spouses should make arrangements between themselves - agreements such as are in dispute in this action - agreements for allowances, by which the husband agrees that he will pay to his wife a certain sum of money, per week, or per month, or per year, to cover either her own expenses or the necessary expenses of the household and of the children of the marriage, and in which the wife promises either expressly or impliedly to apply the allowance for the purpose for which it is given. To my mind, those agreements, or many of them, do not result in contracts at all, and they do not result in contracts even though there may be what, between other parties, would constitute consideration for the agreement. Arrangements made between husband and wife often involve, as well as mutual promises, something given or done or suffered in return for those promises, which in other circumstances would constitute consideration. Nevertheless, they are not contracts, and they are not contracts because the parties did not intend that there sould be any legal consequences. (From the summing-up by Lord Justice Atkins - see final NOTE.)

Here, of course, we have yet another variety of legal English, a spoken courtroom variety but so carefully composed that one might forgive a non-native speaker for not recognising it as spoken discourse. Be that as it may, this passage, and the other summing-up shown below, refute any charge of obscurity. They are, it seems to me, models of clarity, balanced sentence structure, and plain but precise terminolgoy. Given careful preparation, a higher intermediate, or perhaps even intermediate, student is capable of understanding, on first reading:-

a) the decision implied by the argument
b) the main legal point

More detailed questions can follow the second reading. The Example following tests not only whether students have understood the notion of consideration and its application to the case but also whether they have appreciated the force of the conditionals in the passage:-

(True or False)

On the question of consideration the judge implies that __________.

____ although there was something given, done, or suffered for a promise, there was no consideration.
____ although there was consideration, there was no contract.
____ there was no consideration because the parties did not intend that their agreement should have legal consequences.

One of the main qualities that any lawyer or law student must possess is the ability to discriminate: between different sets of facts, evidence given by different witnesses of the same event, different interpretations of the same facts. The comparison of texts dealing with similar situations but differing in detail is therefore useful. Consider this passage:-

STAGE 4

MERRITT .v. MERRITT (1970)
Court of Appeal, Civil Division

This case concerned an agreement between husband and wife. They were married in 1941 and had three children. In 1966 the husband left home to live with another woman. The matrimonial home was in the joint names of the husband and wife and was subject to an outstanding morgage of some £180. In order to make arrangements for the future, the wife met the husband and they talked the matter over in his car. He said that he would pay her £40 a month out of which she would have to pay off the outstanding morgage. He gave her the building society mortgage book. Before leaving the car, the wife insisted that he put into writing the following further agreement:-

> "In consideration of the fact that you will pay all charges in connection with the house . . . until such time as the mortgage has been completed I will agree to transfer the property into your sole ownership."

The husband signed and dated the agreement and the wife took and kept the piece of paper on which it was written. When the mortgage was paid off the husband refused to transfer ownership of the house to her. The wife sued, the trial judge decided in her favour, and the husband appealed.

There are obvious similarities between this story and Balfour .v. Balfour. But look hard at the differences, especially those concerning the relationship between husband and wife. Then read again the passage defining the intention to create legal relations. Is Mrs. Merritt's case in this context any stronger than Mrs. Balfour's? If so, why?

After some discussion along these lines students can be shown the judge's summing-up which, appropriately, refers to both the cases studied and draws the whole thing together:-

STAGE 5

The first point taken on his behalf by counsel for the husband was that the agreement was not intended to create legal relations. It was, he says, a family arrangement such as was considered by the court in Balfour .v. Balfour and Jones .v. Padavatton. So the wife could not sue on it. I do not think that those cases have any application here. The parties there were living together in amity. In such cases their domestic arrangements are ordinarily not intended to create legal relations. It is altogether different when parties are not living in amity but are separated or about to be separated. Then they bargain keenly. They do not rely on honourable understandings. They want everything cut and dried. It may safely be presumed that they intend to create legal relations. (From the summing-up by Lord Denning - see final NOTE.)

The language could hardly be more straightforward and simple and students should have no difficulty in inferring the judge's decision in favour of the wife. But they key question is:-

(Choose the Best Answer)

In law, the essential difference between this case and Balfour .v. Balfour concerned __________.

a. whether the couple were separated or living together normally at the time the promise was made
b. whether the agreement was made orally or in writing
c. whether the agreement was temporary or permanent
d. the moral behaviour of the husband

If the first three answers are all arguably correct, and certainly relevant, so much the better; more fruitful discussion will follow. Reality is seldom (to borrow a phrase) cut and dried. Nevertheless, the best answer is clear from the extract.

The other case mentioned, Jones .v. Padavatton, could, of course, also be followed up. Otherwise students may be asked whether Jones and Padavatton

a. made some kind of agreement
b. were living together
c. were related
d. made a contract

all of which can be inferred from the summing-up. It may be noted that many of the questions asked are inference questions. The obvious relevance of inference to the interpretation of contract documents, i.e. express versus implied conditions, lends point to developing sensitivity in this area.

Postscript 1

Arguably the 'stories' could be used for fruitful comparative discussion as they stand, independently of the legal background (i.e. Stages 1 and 4 only). This would practise accurate factual comprehension and discrimination but the legal background is essential to focus the discussion and link the cases in an objective manner. Without it, discussion is diffuse, judgements related not to commonly accepted criteria but to dimly felt and inarticulate ideas of 'justice'.

Postscript 2

Why English Law?

a. because of the importance of precedent.
b. because simple casebooks on legal systems other than the British and American are, apparently, not available.

These two factors are only partially distinct; they appear to complement each other. The fact of English Law being actually created by precedent explains the necessity for casebooks since these actually show how the law has come to be what it is. In legal systems were the judge interprets the law without reference to decided cases there is a much less obvious need for casebooks: in such systems, the study of decided cases belongs less to the realm of basic law than to that of specialised jurisprudence.

No doubt one could find lcoally case summaries o offering material for comparison. But it would be hard to create that sharpness of focus where two sets of circumstances or events are brought into comparison by their exemplification of a single area or element of law.

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NOTE

The summings-up included in this article are extracted from A casebook in contract law (see above). They are not identical to the form in which they appear in that book and they should not be quoted as or assumed to be verbatim extracts.☐

LEGAL CASES - WHY NON-NATIVE STUDENTS ARE BAFFLED

(Continued from Page 2)

A very common grammatical trap, incidentally, is to fail to recognize the negative force of such sentence openings as: "We cannot adopt the view of Erskine, J. in Sleath v. Wilson that . . .", "I am very far from saying that . . .", "It would be going a good deal too far to say that . . .".

A particular problem of the legal register is to know when vocabulary is being used in its legal sense. "If the servant (merely) took a longer road . . . it is a question of degree as to how far the deviation could be considered a separate journey. Such a consideration is not applicable to the present case." The words 'consideration' and 'applicable' have precise legal meanings, but they are not used in their legal sense here: the sentence merely means "But that is another matter." How are student to know this, though? Just as confusing is the use of 'considered' in the previous sentence, to which students are tempted to think the anaphoric 'such' refers.

The range of difficulties mentioned here is not exhaustive, but it suggests why the student rapidly feels helpless when confronted with cases to read without specific training in the techniques and language skills involved. His first defence is to merely read the headnote, but headnotes are notoriously misleading, the facts summarized in the headnote are too terse to understand easily, and the ratio is often poorly stated. His next line of defence is to turn to the textbook, and memorize what the textbook says - a method of learning reinforced by the obvious success of his predecessors, who boast of never having opened a casebook, and by the teaching techniques of faculty, who take too readily into account the likelihood that students have not read the cases.

Once the particular difficulties have been analyzed, materials can be developed to exercise the necessary skills: developing specific reading strategies and exercises based on specific confusing words, collocations[5] and structures, for example. Alerting one's colleagues to the difficulties students have with particular decisions, and ideally co-operating in a case-by-case analysis of student errors in comprehension is a further step.

Understanding reported cases is only one of many tasks law students require to undertake, of course. By isolating the difficulties involved in this and other skills, useful course material can be effectively synthesized.

1. The language of judgments differs from that of statutes and legal documents on the one hand, and from that of forensic pleadings on the other. This is partly because they straddle the borderline between the spoken and written modes.
2. Rose v. Plenty (1976) 1 All E.R. 97
3. Storey v. Ashton (1869) LR 4 QB 476, at 480
4. Rose v. Plenty, at 106
5. Spencer: 'Noun-Verb Expressions in Legal English' is an interesting basis for collecting materials.☐

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EASIFICATION OF LEGISLATIVE TEXTS

V.K. Bhatia

Legal writing in general and Legislative writing in particular present specific psycholinguistic problems in their processing and understanding (Bhatia: 1982). EALP practitioners often find it difficult to use legislative texts as input to their course components as they are faced with the problem of grading them, especially in the initial stages. Unlike many other specialist disciplines where it is considered appropriate to simplify subject-specific texts, it is neither possible nor appropriate to tamper with legislative texts in order to bring them to the level of the linguistic competence of the learners. However, as I have argued elsewhere (Bhatia: forthcoming), it is possible to make such texts more accessible to learners without simplifying either their content or form. This can be done by using what I have referred to as easification procedures (Bhatia: forthcoming) which provide a kind of access-structure around the text the purpose of which is to help comprehension without sacrificing its originality, authenticity and linearity. In contrast to what has traditionally been regarded as 'simplification' in ELT methodology, where a message (text) is made more accessible to learners by bringing its form and/or content down to their level of linguistic competence, 'easification' tends to provide additional processing strategies to the reader to bring his underlying competence up to the level of the text without changing either its form or content. Both the procedures are meant to help the reader with his 'intake' (Corder: 1967), but one achieves it by controlling the 'input' whereas the other does so by developing appropriate strategies in the reader which are considered essential for dealing with a particular type of text.

There are two main considerations which must guide an EALP course designer in developing what has been termed as 'easification' procedures to make a particular text-type more accessible to a set of readers. The nature of the text as well as the nature of problems that it is likely to pose to the learners; and, the purpose of reading the text, i.e. the kind of activities/tasks that the learners are likely to be required to perform on reading the text. Legislative texts, especially Acts of Parliament and statutory instruments display a typical cognitive structuring which is reflected in a complex interplay between the main provisionary clause in a legislative sentence and its attendant qualificatory insertions at various syntactic positions, clause-initial, a variety of medial and clause-final. Some legislative sentences require so many qualifications at the same time at specific syntactic positions that they have to be inserted within the structure of certain phrases, especially after the operator in the verb phrase. Qualificatory insertions like these, which render the phrase within which they occur discontinuous, create specific psycholinguistic problems in their processing and understanding (Bhatia: 1982) by imposing excessive strain on short-term memory. Those familiar with legislative writing will agree that sentences like the following from the 'Housing Act 1980' are by no means rare in such a variety.

> (1) Where the dwelling-house with respect to which the right to buy is exercised is a registered land the Chief Land Registrar shall, if so requested by the Secretary of State, supply him (on payment of the appropriate fee) with an office copy of any document required by the Secretary of State for the purpose of executing a vesting order with respect to the dwelling-house and shall (notwithstanding section 112 of the Land Registration Act 1925) allow any person authorised by the Secretary of State to inspect and make copies of and extracts from any register or document which is in the custody of the Chief Land Registrar and relates to the dwelling-house.
>
> (Section 24, Subsection 5)

This example gives not only a good idea of the complexity of modification in the legislative sentence but also an indication of the variety of such modification. Apart from the usual qualificational insertions such as full/reduced relative clauses like 'with respect to which the right to buy is excercised', 'required by the Secretary of State', 'authorised by the Secretary of State', and 'which is in the custody of the Chief Land Registrar and relates to the dwelling-house' that one may find in ordinary everyday writing, there are some which specifically belong to legislative writing not only because of their linguistic form, especially some of the key complex-prepositional phrases (Swales and Bhatia: 1980), but also because of their typical legal function. Their function seems to be typically legal because they are meant to answer legal questions and doubts that might be legitimately raised in the context of the legal provision that the sentence is meant to encode.

The following version of the same example, to which the easification procedures have been applied, makes the underlying cognitive reality of the provision more explicit. It tends to reorganize the message without sacrificing its originality, authenticity and linearity on two planes simultaneously: the main provisionary clauses on the left on a vertical plane and the qualificational insertions on the right on a horizontal plane. The arrows between the two are meant to restore the linear nature of the text. In the extreme right hand column are listed the functions of various qualifications which make explicit the nature of relationships between the main provisionary clause and the various qualifications that are attached to it.

Easified Version (1A)

MAIN PROVISIONAL CLAUSE	QUALIFICATIONS	FUNCTION
	Where the dwelling-house with respect to which the right to buy is exercised is a registered land	DESCRIBING THE THE CASE
the Chief Land Registrar shall		
	if so requested by the Secretary of State,	ASSIGNING VOLITIONAL CONTROL
supply him		
	(on payment of the appropriate fee)	SPECIFYING CONDITION
with an office copy of any document		
	required by the Secretary of State for the purpose of executing a vesting order with respect to the dwelling-house	SPECIFYING PURPOSE
and shall		
	(notwithstanding section 112 of the Land Registration Act 1925)	DEFINING SCOPE
allow any person		
	authorised by the Secretary of State	
to inspect and make copies of and extracts from any register of document		
	which is in the custody of the Chief Land Registrar and relates to the dwelling-house.	

Such an easified version, when used as input to an EALP course component, has a number of advantages over the original version. Firstly, it makes the text more accessible to the learner while retaining its originality (i.e. its form and content), and linearity, which are invariably sacrificed in all kinds of simplification procedures. Secondly, it brings to the surface the underlying cognitive structuring thereby helping the learner to process and understand the message. Thirdly, it makes explicit the conditions under which the provision becomes operative, so that the learner can easily see if the provision applies to a given set of conditions or circumstances, which is one of the main tasks that a law student is expected to perform on such texts. This gives a greater authenticity to the text. And, finally, such an easification not only encourages the learner to internalize an efficient syntactic processing strategy but also helps him in the identification and resolution of any syntactic ambiguity that may be present in the text. Moreover, it is not only a technique for text presentation alone, but also a learning strategy which may provide a basis for various activities in an EALP class. Easification, therefore, if used as an alternative to simplification, can overcome the problem of grading texts as input to EALP reading courses and the control can be reduced gradually as the learners begin to internalize these strategies for application to new texts on their own without having been provided with an access structure like the one which easification procedures provide.

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THE ENGLISH FOR LAW COURSE AT COLCHESTER ENGLISH STUDY CENTRE, ENGLAND

Michael Dean

The British Council Study Fellows are a well-established yearly course at Colchester English Study Centre. They are a multi-lingual postgraduate group who come to CESC for language training before taking up their British Council scholarships to study at postgraduate or research level at Universities in Britain.

The first two phases of their course at CESC are devoted to general language improvement and only in the third phase, which lasts one month, are the learners grouped according to their subject specialism. In 1981, for the first time, four of the Study Fellows were lawyers.

The task, then, was to design and prepare an E.S.P. course at high intermediate/advanced language level covering the third month of a three month language course.

The four lawyers were from Nepal, Somalia, Panama and Italy and had varying legal specialisms, as follows: Civil Aviation Law, Aviation and Maritime Law, Aviation and Transportation Law, Finance and Business Law. At CESC all the teaching staff enjoy writing specialist material and catering as specifically as possible to the learner's needs, so a decision was made to incorporate each of these specialisms into the course.

As far as language skill area was concerned, listening (to lectures) and reading (textbooks, cases) were considered vital. Writing was important and so was notetaking, although this had been taught extensively in phases one and two of the Study Fellows course. It was also necessary to familiarise the learners with an English law library and English cases. The English legal system was felt to be relevant too, because we believed that law lecturers at a British University would have it as part of their terms of reference, whether they overtly referred to it or not.

Combining the demands of subject matter and language skill area within the framework of a 5 x 45 minute lesson day using two teachers gave us a course outline like this:

WEEK 1

Subject Area

The Civil and Criminal Law Courts
The Personnel of the Law
How to Find Acts of Parliament and Law Cases - text handout
Maritime Law - Carriage by Sea
    Bills of Lading
    Demurrage and Dispatch Money
    The Carriage of Goods by Sea Act 1971
    Liability of Shipowners
Presentations - the Legal system in the learner's country

Skill Area

Extensive and Intensive Listening (tape)
Reading

WEEK 2

Subject Area

Aviation Law - The Air Navigation Order
    Registration and Marking of Aircraft
    Certification of Aircraft
    Civil and Criminal Liabilities
    Damage to Third Parties on the Surface

Skill Area

Extensive and Intensive Listening (video)
Reading and Writing

WEEK 3

Subject Area

International Transport - Permits and Permit Requirements
Visit to Law Courts
Visit to University Law Library - The case law pertaining to the case heard at the law courts (assault)
Moot - Moot based on the researched case heard at the Law Courts

Skill Area

Oral/Aural Skills
Reading

WEEK 4

Subject Area

Law cases - Read in class. Case Law researched at University Law Library.
Moot - Based on one of the law cases.
Business Law - The nature and formation of contract
Contract Cases
Implied Terms

Skill Area

Reading, Oral/Aural, Listening

As an exercise in applied Study Skills, I took the four learners to the town library to select source material they thought suitable. The Maritime Law, International Transport Law and Business Law came from this source. The Aviation Law came from Halsbury's Laws of England. Material on the English legal system is readily available, and the videos about aircraft came from CESC video library. Having obtained source material in raw state, it was treated as follows:

Extensive Listening

The material on the Law Courts was recorded and questions on it prepared. There were also diagrams of the English legal system to be completed from information on the tape. The learners were given a cassette of the recording for their later reference.

Intensive Listening

Most of the Maritime Law and some of the International Transport was treated as Intensive Listening, using a listening cloze procedure. (Every fifth word in the transcript was blanked and the tape played repeatedly until the learners had filled in the blanks.)

Reading

To check reading comprehension, problems were set, based on the text, that approached the text in a legal way. We were interested, as a lawyer would be, in the legal point of any case or piece of legislation and in the limits of its applicability. No 'comprehension questions' in the sense familiar to language teachers were used in the reading skills part of the course.

As illustrations, here are two problems, taken entirely at random from the course. The first is based on legislation, the second on a case.

Problem 1: J charters a ship from Hamburg to Oran. While on the sea, the Captain learns that there is a plague at Oran so he puts into Algiers to deliver another part of his cargo. He tells J that he will wait for further reports about the plague before proceeding to Oran. J needs the goods urgently so, after a week, he tells the captain to unload them in Algiers. What freight is payable?

Problem 2: While unloading at a jetty the 'Reliant' is damaged when part of the jetty collapses. Later investigation shows that vandals had damaged the supporting piles of the jetty the day before. Discuss this problem with reference to the case of Moorcock.

In addition to problems the learners were also asked to relate given case findings to the principle of law set out in their reading texts.

Reading and Writing

The learners were given long reading texts with a series of questions to be answered in writing as they derived the necessary information from the text. This was done partly in class and partly at home.

The Law Courts/Law Library/Moot

The visit to the local Crown Court was planned in advance so that the learners heard the opening statement, the facts of the case. They took notes. Next day they were accompanied to the University of Essex Law Library by a teacher and assisted in researching the relevant Case Law, which had been quoted in court. Two learners then prepared a defence of the accused, and two the case for the prosecution. The Moot (legal debate) based on the case was held at the end of the week. Other moots were based on cases in the Times law reports.☐

AN APPROACH TO LEGAL VOCABULARY: ELEMENT ANALYSIS

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The highly formal and linguistically conservative nature of legal writing is well known and most obviously identified at the lexical level, as clearly witnessed by the retention of Latin expressions. In addition, Mellinkoff (1963) lists some other features of the Language of Law, two of which I would like to emphasize here:-

(i) Frequent use of common words in uncommon meanings;
(ii) An attempt at extreme precision of expression.

Thus, the student must learn to appreciate, for example, that Action menas a lawsuit, Consideration menas a valuable exchange between parties to a contract, and Instrument means a legal document. Further within a particular legal area, the legal terms tend to be inter-related with each other and to be nicely differentiated from each other by having 'elements' or 'ingredients' that they share and do not share. Therefore, there would seem to be a prima facie case for applying the techniques of Compenential Analysis (Lehrer, 1974) to Legal terminology. It would seem to follow that such an approach might not only be useful as a means of developing the vocabulary of Legal English, but might also play its humble role in consolidating the process of legal training, as so much of this process is a matter of making distinctions. And in that sense "element analysis" fits Widdowson's advocacy of a parallelism between the cognitive style underlying language instruction and that underlying the acquisition of legal skills. (Widdowson 1982.)

The illustrative exercises that follow are based on my experience of teaching Legal English and for a short time Law, at the Sri Lanka Technical College, Colombo, Sri Lanka. Charlesworth's Mercantile Law by Schmitthoff, C.M. and Sarre, D.A.G. (13th Edition - 28th Impression) is the major text both for those taking Law as a professional subject and for those taking Commercial Law as a part of Accountancy, Management or Business Studies courses, and the examples are taken from this work.

ELEMENT ANALYSIS

Read the following passages and indicate by:-

- (✓) elements which must be present
- (X) elements which should not be present
- (O) elements not relevant

(A) In simple contractual undertakings the terms of contract are classified into conditions and warranties. However, condition is a vital term going to the root of the contract, a breach of which entitles the injured party, if he is so minded, to rescind the contract and claim damages for non-performance. A warranty is not a vital term in a contract, but one which is merely subsidiary, a breach of which gives no right to rescind but only an action for damages for the loss which he has suffered.

TERM	A TERM OF A CONTRACT	AN ESSENTIAL TERM IN A CONTRACT	If the term of the contract is broken, the terms will allow the injured party to:		
			claim damages	rescind the contract only	rescind the contract and claim damages
CONDITION					
WARRANTY					

(B) An unenforceable contract is one which is valid but cannot be enforced by action because of some technical defect. The parties to the contract can repudiate it at their own will but it brings forth no legal effects. Though it cannot be enforced, it may have important collateral effects.

A voidable contract is valid and binding until it is proved void by one of the contracting parties.

A void contract is not really a contract at all in the sense that it will not be recognised by courts and no rights can be acquired under it. But collateral contracts connected with a void contract are valid and enforeceable in court.

An illegal contract is affected by the most serious defect of all. Not only is the contract itself void but collateral contracts tainted by the illegality may likewise be void.

TERM	VALIDITY	ENFORCEABILITY	ABILITY TO REPUDIATE	LEGAL EFFECTS	COLLATERAL CONTRACTS VALID
An unenforceable contract					
A voidable contract					
A void contract					
An illegal contract					

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THE CORE-LANGUAGE OF BIOLOGY: LEXICAL AND MORPHOSYNTACTICAL FEATURES (A STATISTICAL APPROACH)

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Nowadays, vocabulary may be considered an unfashionable, neglected area with the current emphasis made on discourse functions but, if we are aware of the fact that, when the proportion of unknown words rises above the 10 percent level, reading comprehension sinks to frustration level (Elliman 1980:40) then, it would be sensible, as Robinson (1980:77) puts forth "to consider vocabulary as the key issue in the teaching of ESP*". Moreover, as Hoffmann (1981:114) explains, the peculiarities of LSP* are first and foremost of a quantitative nature. "It is the significant frequent occurence of certain speech elements, forms or structures that characterizes scientific writing and spoken discourse." As a consequence, statistical methods play an important role in selecting an inventory for teaching purposes, and last but not least, these mathematical procecures prove to be particularly useful on the word and phrase level. Hoffmann (1981:115) explains this in the following terms: "A list of typical lexical and syntactical items may serve as a highly effective teaching/learning minimum."

Many investigators, (Halliday 1969, MacKay and Mountford 1978, Turano-Perkins 1979, Hoffmann 1981, Greenall 1981 and others) agree that such word-lists provide useful information for the course writer; in particular according to Swales (1976) they have a useful role as "aide memoire", reminding us of language items or linguistic features which might have otherwise been overlooked. They provide a framework within which pedagogical selection in reading, teaching and testing can be made."

Because of this, and in view of the fact that ESP courses are assuming a growing importance at the University of the Andes (Mérida, Venezuela), as well as in other parts of the world, we decided to carry out a research project in order to define quantitatively the fundamental vocabulary of biology.[1] All students of the faculty of Sciences at the University of the Andes must study biology for four hours per week for two semesters.

In other words, the purpose of this research was to find out a fundamental minimum which contains the most frequent lexical elements which the English instructors could use to elaborate their teaching materials instead of working on empirical and subjective grounds.

LINGUISTIC CORPUS

This research is based on a linguistic corpus of 40,000 words taken from eight different books currently used by professors who teach biology at the University of the Andes. (A questionnaire, in which we asked the professors the titles of the books - or journals - they recommend their students to read, had previously been sent.) In this way, we were sure that our linguistic sample was representative of the whole population.

METHODS (1)

RESULTS AND DISCUSSION

The statistical tests allowed us to successfully split the biology lexicon into three superimposed strata:

1) Basic English (BE) defined as that part of the lexicon common to all kinds of writing whether it be scientific or literary. It is composed mainly of structural words and a few content words which, as Salager (1977) and Pica (1981:30) note, suffer a semantic restriction in scientific prose.
2) Fundamental Biology English (FBE), made up of those lexical units which are both frequently occurring and widely spread across the whole spectrum of biology. These are the general terms which apply to the whole field of biology rather than to any specific branch. This second sub-layer forms what was refered to before as the fundamental minimum. These items, also called subtechnical words (Cowen 1974) or academic vocabulary (Martin 1976:91) are not frequent in general language, but indispensable to the understanding of professional texts.
3) Specialized Biology English (SBE) which is mainly composed of specialized terms of Latin and Greek origin particular to a given sub-branch of biology (e.g., biochemistry, animal biology, molecular biology, etc.)

One thousand two hundred and forty-five (1,245) roots 2 have been recorded beyond the level of statistical significance (F $\geq$0,05/00). Four hundred and thirty-eight (438) roots fell into THE BE stratum (35,18%); two hundred and ninety-nine (299) belonged to the fundamental layer (24, 02%) and five hundred and eight (508) belonged to the SBE (40,80%) substratum.

Now, let us briefly discuss the rhetorical function of FBE lexical items because it is that part of the lexicon which is of the utmost importance for the ESP students.

These lexical units can be classified according to the grammatical category in which they belong:3

I. VERBS

The highest frequency verbs (1,60 $\geq f \geq$0,30) bear an explanatory and illustrative connotation likely to be encountered whenever a research project is involved--a logical fact, since "doing science" involve such acts as hypothesizing, defining, classifying, concluding. Here are some examples:

	$\overline{F}$/00		$\overline{F}$/00
to present	(1,58)	to tend	(0,65)
to show	(1,58)	to compare	(0,60)
to occur	(0,98)	to consist of	(0,53)
to arrange	(0,83)	to transfer	(0,50)
to indicate	(0,80)	to illustrate	(0,45)
to describe	(0,73)	to obtain	(0,38)
to involve	(0,68)		

The FBE verbs which express cause-effect relationships are very frequent too in technical writing, and this is explained by the fact that, as the technical writer analyzes, reports and investigates, s/he must also show the cause-effect relationships occurring between two or more phenomena and draw conclusions from them, e.g.:

to produce	(1,38)	to arise	(0,40)
to result	(1,38)	to obtain	(0,38)

At lower frequencies (0,80 $\geq f \geq$0,05), we encounter some verbs which belong to the language of mathematical terminology, e.g.:

to derivate	(0,08)	to substitute	(0,05)
to subtract	(0,08)		

II. NOUNS

The highest frequency FBE nouns (1,25 $\geq f \geq$0,30) belong a) to the domain of methodology procedure, and, therefore, carry an abstract and modal meaning:

process	(1,25)	analysis	(0,48)
mechanism	(0,60)	case	(0,30)
condition	(0,58)		

and b) to the language of bio-chemistry, e.g.:

protein	(2,90)	stratum	(0,58)
phosphorylation	(1,30)	substance	(0,55)
chemical	(0,88)	shape	(0,45)
particle	(0,78)	cycle	(0,30)
layer	(0,75)	oxygen	(0,28)
matter	(0,63)	nitrogen	(0,25)

Others are mainly used to describe the structure of elements:

structure	(1,78)	specie	(0,30)
series	(0,50)	fluid	(0,25)
feature	(0,43)	filament	(0,18)
portion	(0,33)	skeleton	(0,13)
standard	(0,33)	shell	(0,10)

At the boundary of statistical significance, we found nouns which could as well have been classified by the statistical tests as SBE because they already belong to a biological sub-specialty:

nutrition	(0,80)	mucus	(0,05)
ovum	(0,80)	urea	(0 05)
ovary	(0,06)		

Finally, we can also observe the presence of terms lifted intact from the classical languages. These mainly refer to chemical elements and/or compounds.

ribonuclease	(1,15)	imidazolium	(0,05)
magnesium	(0,15)	ethanol	(0,05)

We cannot contend with merely mentioning the lexical features of the FBE stratum. A scrutinous study of this layer indicates two morphosyntactical characteristics which have a direct bearing upon the teaching procedures. These are 1) compound-word process and 2) affixation.

As can be seen, the majority of the aforecited lexical items have a very general and broad meaning. Thereby, they are frequently employed in compound word formation where they acquire a definite meaning and serve a terminological function, e.g.:

"nitrogen bomb"; "fixing bacteria"; "plant species"; "catalysis process"; "twig surface"; "foliage leaf"; "protein storing tissues"; "waste substance"; "cell activity"; "protein material"; "thin-walled bladder"; "U-shaped loop"; "waste matter"; "thin-walled tube"; "sense cell"; "plant succession"; "salt content".

The process of affixation is extremely productive in the FBE layer. Indeed, for the sake of accuracy, the technical writer does not use different components for designating one and the same basic concept. Contrary to the man of letters who strives to find synonyms (in order to avoid ambiguity), the technical writer very frequently resorts to the same root (or one of its multiple derivates) for describing a concept, its functions, its characteristics. About 45% of the FBE roots are affixed, only 30% in BE and 15% in SBE. Moreover, the higher

(Continued on Page 8)

◆◆◆◆ NEW ESL TEXTS ◆◆◆◆

Yorkey, Richard. STUDY SKILLS FOR STUDENTS OF ENGLISH, Revised Edition, McGraw-Hill International Book Company, 1982. (256 pp.)

This revised edition is intended for intermediate to advanced level English as a Second or Foreign Language students studying at the secondary, junior college, college and university level. It may also be effectively used in academic study skills programs where the emphasis is on language use in academic programs rather than English language development.

This new edition continues many of the same topics introduced in the earlier edition. It differs from the first by having an increased emphasis on reading for comprehension through contextualization, and on developing listening skills for making lecture notes. There is also an increased emphasis on vocabulary development in a written context.

Beitler, Lorraine and Barbara McDonald. ENGLISH FOR THE MEDICAL PROFESSIONS. McGraw-Hill, 1982. (256 pp.)

English for the Medical Professions is designed for the secondary through college level student preparing for a career within the medical professions as well as for related biochemical disciplines. The goal of the text is to bring students quickly to a point where they can read medical texts of increasing difficulty and density with ease and comprehension. Throughout the text comprehension rather than production of language is stressed.

REEP COMPETENCY-BASED ESL CURRICULUM

The REEP curriculum is a comprehensive system which has been developed for use with adult refugees. It also provides instructional direction to teachers of other adult learners who have need for basic social language proficiency as opposed to academic language proficiency. This curriculum uses a functional approach to competency based survival ESL. The learners' immediate language needs have been identified into learning objectives, and a system which integrates the "purpose of communication" (function) grammar and content is employed.

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The curriculum is currently available for purchase:

- Track A $ 8.00 Track A & B $14.50
- Track B $ 8.00

To order write: Refugee Education and Employment Program, Attn. Inaam Mansoor or Carol Van Duzer, Curriculum Project, 1601 Wilson Blvd., Arlington, VA 22209.

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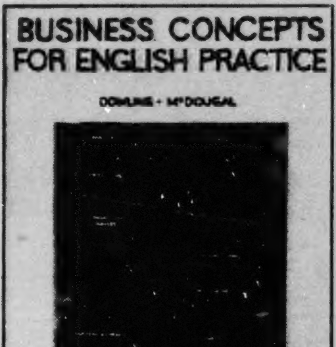

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RESOURCES

A "Directory of State Title VII Project Directors, Refugee Assistance Coordinators, and Bilingual Vocational Education Officials 1981-82" was published as a supplement to the June 1982 FORUM. The eight page issue contains the names, addresses, and telephone numbers of the officials in the three fields. Also included is a chart of bilingual education legislation in the states and territories. For a complimentary copy of this supplement, contact NCBE at 1300 Wilson Boulevard, Suite B2-11; Rosslyn, VA 22209; (703)522-0710, (800)336-4560.

FREE the following free minibibliographies are new or have been recently updated:

- American Culture
- Cognitive Learning Styles in Foreign Language
- English for Special Purposes (ESP)
- FL in the Middle Grades
- German Culture
- Hispanic Culture
- Vocabulary and Second Language Learning

Available also is a question and answer sheet "Public Relations for Foreign Languages". Write to User Services; ERIC/CLL; 3520 Prospect Street, N.W.; Washington, DC 20007.

Knoll, Tricia. Becoming Americans: Asian Sojourners, Immigrants, and Refugees in the Western United States. 1982. Portland, Oregon; Coast to Coast Books.

A comprehensive account of Asian American groups (Chinese, Japanese, Filipinos, Koreans, Vietnamese, Laotians, Overseas Chinese, and Kampucheans), tracing each nationality from homeland history through U.S. citizenship. Extensive documentation including census, immigration, and refugee data through 1981, graphs showing arrival patterns of each nationality, extensive bibliography and lists of resources.

Available from Coast to Coast Books; 2934 N.E. Sixteenth Avenue, Portland, OR 97212.

Recent Publications from LSP Centre

Available from Nyt Nordisk Forlag; Arnold Busck A/S; Købmagergade 49; DK-1150 Copenhagen K; Denmark (prices subject to change without notice).

- Hoedt, Jorgen and Robin Turner (eds.) The World of LSP. 223 pp. (US$12.00)

  A data register of the LSP research and pedagogic activities of the 157 UNESCO ALSED LSP Network members in 38 countries compiled by the Network secretariat of the LSP Centre at the Copenhagen School of Economics.

  The text is a comprehensive report of recent LSP activities, and records the movement of LSP from the fringe to a prominent place in foreign language teaching domain.

- Hoedt, Jorgen, Lita Lundquist, Heribert Picht, and Jacques Qvistgaard (eds.) Proceedings of the Third European Symposium on LSP, 'Pragmatics and LSP'. 643 pp. (US$12.00)

  The proceedings are divided into four sections. Section one addresses Text Typology; section two, Speech Acts and Communication; section three, Terminology - Lexicography, Translation - Interpreting; and section four, Didactics.

- Hoedt, Jorgen and Robin Turner (eds.) New Bearings in ESP. 181 pp. (US$12.00)

  This 1981 publication reports recent work in five areas: 1) The Definition of the Problem; 2) LSP Use and Theory; 3) LSP Operational Preliminaries; 4) LSP Curriculum Planning and Development; 5) Aspects of Course and Syllabus Design.

ENGLISH LANGUAGE RESEARCH JOURNAL (ELRJ)

The journal, edited by Chris Kennedy, is concerned with English Language teaching, learning and research with an emphasis on English for Specific Purposes. The term ESP is to be interpreted broadly so that a large number of practical and theoretical areas can be covered which will be of interest to those involved in ESP. Topics include analysis of spoken and written discourse, computer text analysis, language varieties, study skills and syllabus/materials design.

The journal appears annually at the end of the calendar year. The 1982 issue is in preparation and will include articles by V.K. Bhatia, J. Holmes, M. Phillips, E. Smythe, J. Port-Fox, and J. Swales.

Copies of the 1981 issue of the ELRJ are also available. Articles present work by S. Andrews, Dave Willis, Tony Dudley-Evans, Steven Darian, and Jane Willis. Also included are reviews of Stubbs, M. Language and Literacy: The Sociolinguistics of Reading and Writing, by J. Holmes; and a review of Labov, W. and Fanshel, D. Therapeutic Discourse by R. Mead.

To order your copy, send £ 2.50 (including postage), cheques payable to The University of Birmingham, to: Mrs. Anne Preston, English Language Research, The University of Birmingham, P.O. Box 363, Birmingham B15 2TT, England. Contributions in the form of articles, reviews and research reports are also invited. Further details may be obtained by writing Mrs. Anne Preston at the above address.

● ● CONFERENCES ● ●

The American Language Academy CAI Seminars

INDIVIDUALIZED LANGUAGE TEACHING THROUGH MICROCOMPUTER-ASSISTED INSTRUCTION

The American Language Academy is pleased to announce an expanded schedule of workshops and seminars in Computer-Assisted Instruction (CAI) for the 1982-83 academic year. Our two-day workshops will be held:

Colorado Springs, CO	January 27-28, 1983
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Cleveland, OH	March 3-4, 1983
Tampa, FL	April 21-22, 1983

Our intensive five-day seminar will be held:

Boston, MA	August 9-13, 1983

Both the workshops and seminars will provide the theoretical background and hands on experience necessary to enable participants to make practical use of microcomputer-assisted language instruction. For more detailed information, please write or call our Executive Offices for a brochure: the American Language Academy, Suite 200, 11426 Rockville Pike, Rockville, MD 20852; Phone (301) 984-3400.

* * *

CONFERENCE ON FOREIGN LANGUAGES FOR BUSINESS

April 7-9, 1983. The Keynote Speaker will be Rose L. Hayden, Executive Director, The National Council on Foreign Language and International Studies. We will consider papers, to be presented in English, on Business FRENCH, GERMAN, SPANISH and ENGLISH as a Second Language. Preference given to presentations (lasting either 15 or 40 minutes) dealing with rationale and funding, employment opportunities, courses and programs, culture and business in language classes, articulation of new courses and programs and traditional ones, techniques, methodologies, textbooks and materials, proficiency examinations, internships, teacher retraining strategies, professional acceptance in academia. Program details, pre-registration materials, and guidelines for submission of abstracts available from the Conference Chairman, Geoffrey M. Voght, Associate Professor of Spanish, Department of Foreign Languages and Bilingual Studies, Eastern Michigan University, Ypsilanti, Michigan 48197; (313)487-0130/487-0178.

* * *

FOURTH SUMMER INTENSIVE CHINESE LANGUAGE INSTITUTE

The fourth Summer Intensive Chinese Language Institute will be held from June 13-August 19, 1983. The institute is jointly administered by the University of Minnesota and Nankai University. Participants will meet in San Francisco on June 13 for orientation and will depart for Peking on June 15. Classes will begin in Tianjin on June 20. A midsession tour of Beidai He, a resort city on the coast of the Yellow Sea, will be part of the institute. In addition, an optional 11-day tour will be conducted at the end of the institute program. The tour includes a visit to Xian and Chongqing and a boat trip along the Yangtze River from Chongqing to Shanghai. Application deadline is February 28, 1983. For further information and application materials, write to: China Center; Minnesota-Nankai Institute; University of Minnesota, 314 Social Sciences Building; Minneapolis, MN 55455; (612)376-2593.

AIMAV - SEPTEMBER 6-9, 1983

An international colloquium will be jointly organized by the "Association Internationale pour la recherche et la diffusion des méthodes audio-visuelles et structuro-globales" (AIMAV), Brussels, Belgium and the Department of Applied Linguistics of the University of Nijmegen, The Netherlands. The colloquium aims at evaluating new tendencies in foreign language didactics. By evaluating these tendencies the colloquium will, it is hoped, provide answers to the following questions:

- What is the scientific basis of the theories recently developed?

- To what extent can new teaching methods be applied at the level of educational systems?

The theme of the colloquium: New approaches in foreign language methodology.

Educational linguists are invited to send abstracts of papers or workshops, relating to the theme of the colloquium. The closing date for submitting abstracts will be February 1, 1983; however, preliminary information on a proposed presentation was to have been submitted by December 1, 1982.

For more information contact:
Department of Applied Linguistics
University of Nijmegen
c/o Mr. H. Bours
P.O. Box 9103
6500 HD Nijmegen
The Netherlands

* * *

INTERNATIONAL LEXICOGRAPHY CONFERENCE AT EXETER

Preliminary registrations are invited for an international conference on all aspects of lexicography, to take place at the University of Exeter from 9-12 September, 1983 (full lecture programme 10th and 11th).

There will be some keynote lectures on the major general issues in dictionary-making, but the emphasis will be on more specialised topics, discussed in section meetings, on the subjects of: (a) The Historical Dictionary; (b) The Bilingual Dictionary; (c) The Learner's Dictionary; (d) Terminology Standardisation; and (e) Computer-Aided Lexicography.

Several professional associations have expressed interest in helping with the programme-planning, e.g. The Dictionary Society of North America, The British Association for Applied Linguistics, The Association for Literary & Linguistic Computing, and INFOTERM.

The all-inclusive charge for the period Friday evening to Monday morning will be approximately £ 90.00.

Write to: Dr. R.R.K. Hartmann
The Language Centre
University of Exeter
Exeter EX4 4QH, Devon, U.K.

◆◆◆◆◆◆◆◆◆◆ CONFERENCE REPORTS ◆◆◆◆◆◆◆◆◆◆

NATIONAL SYMPOSIUM ON PHILOLOGICAL STUDIES

A National Symposium on philological studies was recently held (the 29th - 30th of October) at the University of Galati, Romania. One of the main sections was devoted to special languages - ESP included. The following are among the papers held at the Symposium:

1. Contrastive Semantics and the Teaching of Technical Vocabulary

   dr. F. Chirila
   The University of Bucharest

2. Suggestions for a Taxonomic Interpretation in EST

   D.I. Simion
   The Polytechnical Institute of Bucharest

3. Orientations in the Teaching of ESP in Romania

   dr. N. Bejan
   The University of Galati

4. Particulars of Teaching English Technical Texts to Romanian Students

   C. Avadanei, M. Nicolau
   The Polytechnical Institute of Iasi

5. More About Error Analysis

   dr. M. Chitoran
   The University of Bucharest

6. New Orientations in the Use of Audio-Visual Aids in Teaching of Special Languages

   N. Samson
   The Polytechnical Institute of Iasi

7. Translations within Modern Techniques in EFLT

   S. Oprescu
   The University of Bucharest

UNIVERSITY OF MINNESOTA
SUMMER INTENSIVE CHINESE LANGUAGE INSTITUTE
at Nankai University
Tianjin, People's Republic of China

The University of Minnesota and Nankai University have successfully concluded the third Summer Intensive Chinese Language Institute jointly administered by the two universities. The institute, held on the Nankai campus in Tianjin, People's Republic of China, was attended by 27 students from 17 American universities and colleges. The students were accompanied by two staff members of the University of Minnesota: Theodore Huters, Assistant Professor of Chinese, as director, and Kristine Wogstad, Teaching Assistant in Chinese, as assistant to the director.

The group arrived at Nankai on June 18, 1982. After placement tests and an opening ceremony on the 19th, instruction began on June 21. Based on the results of the placement tests, the students were divided into four levels of instruction. Classes met three hours a day for a total of eight weeks, with tutorial sessions one or two afternoons a week. The Minnesota staff worked closely with the Nankai staff in working out appropriate teaching methods and in monitoring student response to the program.

Probably the most valuable part of the institute was the opportunity it provided for students to live in an almost totally Chinese environment: they learned the language in its natural setting. The institute sponsored numerous lectures and classes on cultural topics such as Peking opera and Tai chi chaun, which assisted the students in gaining an understanding of the Chinese tradition. There were also visits nearly every weekend to factories, villages and historical sites, with major excursions in the third and sixth weeks to Peking and Chengde, the location of the summer palace of the Qing dynasty ruling house. At the conclusion of the institute, 21 of the students took part in an optional tour to Luoyang, Xian, Shanghai and Suzhou.

Three students applied to stay on at Nankai for the academic year and were accepted; we hope to make the opportunity to stay on a regular feature of the institute. Even before the conclusion of this year's program, Nankai submitted its plans for the next institute, which have been approved in principle by the University of Minnesota.

EMPLOYMENT OPPORTUNITIES

ESL INSTRUCTORS

International training company is accepting applications for ESL Instructors and Curriculum Specialists to travel on single status and work in the Middle East beginning in January, 1983. Will teach technical English and prepare lesson plans and teaching materials. Qualifications include BA in Linguistics or equivalent, coupled with TEFL certification and/or minimum two years TEFL teaching experience, preferably to Middle Eastern students. Competitive salary and per diem. Benefits include free housing, generous R & R, medical, dental, and life insurance, etc. For more information send resume or call: Roberta Kushen, Personnel Manager; Systran, Inc.; 70 W. Hubbard St.; Chicago, IL 60610; (312)321-0707.

THE ICMC PHILIPPINE REFUGEE CENTER ESL-CO PROGRAM requires senior staff in Curriculum, Training, and Testing and supervisors in ESL, Orientation, and Prevocational instruction. Qualifications: M.A. in relevant discipline and at least 3 years experience. (5 years experience without degree.) Previous work overseas and/or with Southeast Asian refugees. Senior staff posts also require skills in administration and human resources management. Salary: $12-$14,000 plus benefits including housing. One-year commitment. Positions available now.

Send resume and names of two references to:
Mitzi Schroeder, USCC Migration and Refugee Services, 1312 Massachusetts Avenue, N.W., Washington DC 20005. (Please indicate position applied for.)

◆◆◆◆ BOOK REVIEW ◆◆◆◆

Reviewed by Karl Drobnic

A NEW START: A Functional Course in Basic Spoken English and Survival Literacy. Linda Mrowicki & Peter Furnborogh. Heinemann Educational Books, Exeter, New Hampshire, USA. Four volumes, Student's Book, Literacy Workbook, and Teacher's Guide.

Some publishers issue a long list of titles, others rely on a relatively few books to make their mark. One of the latter, in the field of ESP at least, is Heinemann Educational Publishers. Their list includes some of the best texts available on the subject - A FIRST COURSE IN TECHNICAL ENGLISH, CORE GENERAL SCIENCE, and INDUSTRIAL ENGLISH are all good, solid books developed and published in England. Now the North American division has entered the field with another quality title, Mrowicki and Furnborough's A NEW START. It is a good start for the American division, their first ESL book developed and published on the North American side of the Atlantic.

The book is aimed at the zero-level adult learner. It becomes immediately obvious that the Indochinese refugees loomed large in the author's minds in developing these lessons, but this is no drawback if one is not teaching Indochinese. As might be expected in a book aimed at adult beginners, the text is functional in its approach. It is divided into 112 units, each one or two pages long and each dealing with a subject such as instructions, requests, shopping and other high-priority, adult needs.

Grammar is taught secondary to the functions. The intent is to enable the students to cope with life situations. The lessons presuppose no formal educational experience on the part of the learners, and it is for these adults that the literacy workbooks are intended. A teacher's book gives extensive instructions in using the material with either literate or non-literate students. Cassette tapes are also available.

The book relies heavily on numerous illustrations, and here Heinemann shares fault with many other ESL publishers in not paying close enough attention to graphics. Economic constraints notwithstanding, ESL publishers should go to greater lengths to field-test graphics. Whereas text writers tend to go to great lengths to avoid cultural ambiguities, this seems rarely to be the case with graphics. A picture is not much of an aid if the teacher has to interpret it. But this is a broad complaint leveled at the whole ESL publishing industry, not just at this book.

In short, I like A NEW START, and I urge those who deal with zero-level adult learners of English to send for an examination copy. The address is 4 Front Street; Exeter, NH 03833 USA.

ENGLISH FOR SPECIFIC PURPOSES:
SCIENCE AND TECHNOLOGY

MARY TODD TRIMBLE
LOUIS TRIMBLE
KARL DROBNIC
EDITORS

" . . . EVERYONE CONCERNED WITH EST/EBE TEACHING, CURRICULUM DESIGN, AND MATERIAL DEVELOPMENT SHOULD HAVE A COPY CLOSE AT HAND."

- ROBERT KAPLAN, TESOL QUARTERLY

FOR COPIES CONTACT: HEINLE AND HEINLE PUBLISHERS, INC., *51 Sleeper Street, Boston, MA 02210*

THE CORE LANGUAGE OF BIOLOGY

(Continued from Page 2)

the frequency of a root, the more numerous the affixes. For example:

	part	-s;-ed;-ing	(2,15)
	chemical	-ist;-ly	(1,75)
un-	pair	-s;-ed;-ing	(1,38)
	result	-s;-ing;-ant;-ed	(1,38)
co-	relative	-ion;-ship;-ing;-ly	(1,33)
in-	complete	-ion;-ly;-ity	(1,30)
en-	large	-less;-er	(1,30)
	occur	-ing;-ence	(0,98)
	local	-ed;-tion	(0,95)

CONCLUSIONS

Several conclusions can be drawn as far as the FBE stratum is concerned:

1) The FBE stratum comprises high frequency context-dependent verbs which have a common focus on research, analysis, description and cause and effect relationships.

2) Some noun roots belong to the domain of methodology and procedure of investigation as well as to the language of bio-chemistry.
Others are mainly used to describe the structure of elements; and finally, at very low frequency, we find terms from Latin and Greek origin.

3) This part of the lexicon is characterized not only by the selection of individual lexical items but also by definite inter-lexical combinations (compounds) and intra-lexical combinations (affixation). A small number of recurrent affixes are used to derive new words from existing roots, so that a well-founded selection and restriction for teaching/learning purposes becomes possible.

What remains to be done now is to convert these results into teaching material by systematically introducing into the lessons those high-frequency units which constitute the larger part of any text. We cannot deny the fact that those recurrent, homogeneously distributed lexical units must be learned, in priority because they are, in Hoffmann's terms "constitutive" with respect to an any text. By keeping the horse before the cart in this way, appropriateness of eventual materials and viability of the program will be ensured.

NOTES

ESP° = English for Specific Purposes
LSP* = Languages for Specific Purposes

1 For a detailed discussion of the statistical procedures, data gathering and frequency list compilation used in this research, see Salager 1977.

2 The root was chosen as the basic lexical unit in order to avoid a long list of hapax lagomena, e.g., very low frequency items.

3 We did not count the functional or structural words since this study had already been done (Kučera y Francis:1967 and Salager 1977:370).

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English For Specific Purposes

KATHRYN MICHAELS, EDITOR
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TECHNICAL ENGLISH FOR ESL STUDENTS . . 8

A COURSE PROPOSAL FOR THE TEACHING OF ENGLISH AS A SECOND LANGUAGE, ON AN ESP BASIS, TO FIRST YEAR UNDERGRADUATE STUDENTS, IN THE FACULTY OF ENGINEERING, UNIVERSITY OF PERADENIYA, SRI LANKA

Mrs. Lalita Gunewardene
and the Staff of the English Teaching Unit,
Faculty of Engineering

INTRODUCTION

Situation

Sri Lanka has a population of 14 million, of which roughly 72 percent are Sinhalese and 20 percent are Tamils. The main languages, therefore, are Sinhala and Tamil. English, which was the "official" language in the early 1900's, is still spoken widely in the island and is, in fact, the main "link" between these two ethnic groups.

Since the late 1940's the medium of instruction in secondary schools has been the mother tongue (Sinhala/Tamil). In theory, the medium of instruction at the tertiary level is also the mother tongue. In practise, however, several faculties in the University of Peradeniya have departed somewhat from this line. In the Faculty of Engineering, for instance, much of the instruction from the Second Year onwards, is in English. Even in the first year, students have to attend lectures, and laboratory classes conducted in English. Laboratory reports (course work) are almost always written in English. English is taught as a second language in all the secondary schools from the third grade onwards. It is reasonable, then, to expect that the average student (having had approximately 10 years of English teaching at secondary school level) would, on admission to the University, have the competence in English required for tertiary education. This, however, is not the case, and in fact, the level of English fluency among new entrants to the University is seen to fluctuate very widely. Approximately 80 percent of the new entrants fail the Proficiency Test administered in the first week and have to be given special instruction in English. The Faculty of Engineering attempts to come to terms with this problem by making special provision for the teaching of English, as a second language, in the first year. Twelve to fourteen hours per week in the first term, and four to six hours per week in the second and third terms are set apart for the teaching of English as a second language. In addition, English is considered a compulsory subject—a pass in English is mandatory for those going on to the second year.

Brief notes on some of the factors that influenced the choice and organisation of lesson material in the course:

A. Students and Student Attitudes

In the Faculty of Engineering, student motivation and attendance has always been very high. However, it is seen that students—

1. Have a clear idea of their needs and are extremely intolerant of what they consider "irrelevant" to this purpose.

2. Have very little interest in subjects outside their immediate field of study and actively resent the use of non-scientific material in the class room.

3. Are very partial to information presented in a "technical" manner—graphs, diagrams, formulae, etc.

4. Like to know the "rules" of the language . . . "how" and "why" certain structures are used . . .

5. The attitude to learning is heavily examination oriented. Time is valuable and not to be wasted on irrelevant things—learning is a very serious business indeed!

B. Classroom Constraints

1. "Mixed ability" groups ("false" beginners) with large numbers of students in a group. (The average is about 35 students per class.)

2. Ill-equipped classrooms—overhead projectors, photocopiers, tape recorders, epidioscopes and other facilities available to language teachers are almost totally absent. Even typewriters and duplicating machinery are difficult to get at. Thus, the blackboard becomes the most important bit of equipment in the classroom.

Implications of A and B

1. In a mixed ability group, there is always the danger of the "weaker" student being ignored and the "better" bored.

2. Group activities, student participation in lesson etc., could and do create problems.

3. Corrections of errors and error analysis often becomes cumbersome.

4. Teachers get involved in lengthy explanations about the structures taught—often in L1.

5. Lessons become excessively teacher-oriented with the teacher talking for as much as 75 percent of the time.

6. Students learn a great deal about the language, but it is difficult to estimate exactly what they can do with the structures they have learnt.

C. Skills Taught in Earlier Courses

1. Of the traditional language skills—reading, writing, speaking and listening—the University has always concentrated on reading. Little or no attention has been paid to listening and the students' desire to learn spoken (social) English.

2. Much of the teaching has been directed towards fostering those skills that give "linguistic" rather than "communicative" competence.

D. The Mother Tongue—L1 and Its Influence

1. It has been clearly understood that great attention is to be paid to L1 in the teaching of English as a second language at the University level. (The University recruits instructors on the basis of competence in both L1 and L2.) Excessive use of the mother tongue could prove disadvantageous.

2. Patterns and practises of L1 interfere with performance in L2. This "interference" has its advantages as well as disadvantages. (See notes on "word order" and "articles".)

The Course Proper

A. Aims and Objectives

The key word is "purpose". English is to be taught, as a second language, for a very specific purpose—that the first year undergraduate may be able to (at the end of the course).

1. Follow lectures, tutorials and practical classes conducted in English.

2. Write coherent and precise tutorials and laborabory reports in English.

3. Read and comprehend "technical" writing related to the subjects studied (Engineering).

The emphasis will not be on the traditional language skills but on the more recent "study skills"—those skills that are required for study purposes.

B. Methodology

Two "approaches" to language teaching are considered.

1. The traditional structural approach which attempts to foster "linguistic" competence through a knowledge of grammatical structures involved.

2. The more recent notional/functional approach which seeks to develop communicative competence by concentrating on the functions performed by these structures.

The course is intended to be a compromise arrangement, incorporating features of both "approches".

C. Organisation of Lesson Material

1. Since time is limited, the intention is to give the learners a mastery of the basic structures that recur in Scientific English.

2. Lesson units are classified under three broad headings:

a. writing
b. listening
c. reading

The structures to be taught will be introduced through writing and reinforced through listening and reading. No provision has been made for special "speech" lessons. Spoken English will not be completely ignored in that, all work in the classroom is to be done "orally" (in L2) in the first instance. Each lesson unit will also have a "Discussion" section where the use of Spoken English is to be actively encouraged.

3. The organisation of each lesson unit is "functional" in that the items, to be taught have been carefully chosen for the "functions" involved and are grouped under headings such as description, definition, instructions . . . etc. This implies a certain degree of structural disorganisation—i.e. many structurally dissimilar items may be grouped together, while structurally similar items could well be scattered among different lesson units.

4. Some grammatical details that could prove useful in the teaching of certain structures and/or "notions" and "functions" have been included. These are to be used at the discussion stage, if and when necessary, at the teachers' discretion. Teachers should not attempt to teach a "prescriptive" type of grammar on the basis of the details provided.

5. The "Discussion" sections merit special mention. These sections have been deliberately included in each lesson unit for two purposes—to encourage the students to use L2 and to satisfy their need to know the "rules" of the system. Teachers should try not to monopolise discussions. Information should be ellicited from the students (most of them are supposed to have learnt the language for several years) by tactful questioning. Students should provide the ideas—whenever possible in L2. In cases where the learner is unable to express his ideas in English, he should be allowed to do so in L1. The "better" students should be encouraged to help the "weaker" students at this point. This will give the former a sense of achievement and the latter a chance to learn from his colleagues. A properly conducted discussion, while overcoming some of the disadvantages of a "mixed ability" group should help to make the lessons more student oriented and less teacher oriented.

D. Teaching Aids

1. In the absence of sophisticated teaching aids, great attention will have to be paid to "Visuals". A clear uncluttered visual could:

   a. motivate the learner
   b. introduce the notion/function to be taught
   c. replace much of the explanation given by the teacher in L1
   d. act as a cue or prompt . . . help student participation and encourage the learner to use L2. "One picture is worth a thousand words."

2. Several methods of teaching the beginner are suggested—substitution tables, filling in blanks, completion of sentences using given lexical items and a model to be followed, etc. Care must be taken to see that such exercises do not become too mechanical. Most lesson units contain a language game—to be used if the class appears interested and does not consider it a waste of time. Individual teachers should introduce supplementary material of their own. Meaningful pair and group activities based on "realia" such as maps, tables, graphs, etc. could prove useful. Textbooks such as the Nucleus and Focus books, the Reading and Thinking books, Basic English for Science, Structure of Technical English, Writing Scientific English, etc. could be used to advantage.

E. Acknowledgements

The course material is based on over ten years of experience in the teaching of English as a Second Language to undergraduates in the Faculty of Engineering, University of Peradeniya. Much of the information on the needs of students and the Faculty and the language that is actually used in the lecture rooms and laboratories has been ascertained by:

1. English instructors sitting with students in the classroom.

2. Discussions with the academic staff of the Faculty of Engineering.

3. Discusssions with students reporting their problems and needs.

4. Discussion among the members of the English Testing Unit.

I wish to thank the Dean and the staff of the Faculty of Engineering and the Head and the staff of the English Teaching Unit, without whose cooperation this work would not have been possible. I owe a special thank you to Miss Fiona McKay and the staff of the Edinburgh Language Foundation, Edinburgh, who discussed many of the problems with me, and the Hornby Trust for the award that made this discussion possible.

NOTE

The course material has been subsequently pilot tested and found effective, in that, "low level" students could, at the end of the course, write a coherent laboratory report in simple English.☐

CONFERENCE CALENDAR OF EVENTS

Conference (Sponsor)	Date	Location	Contact
Association for Supervision and Curriculum Development	March 5-8, 1983	Houston, Texas	Sara Arlington Conference Program Coordinator, ASCD 225 N. Washington Street Alexandria, VA 22314
16th B.C. TEAL Annual Convention	March 10-12, 1983	Sheraton Landmark Hotel 1400 Robson Street Vancouver, B.C. Canada	Rose Marie Watson Vancouver Community College 2750 Oak Street Vancouver, B.C. Canada V6H 3N2
17th TESOL Annual Convention	March 15-20, 1983	Sheraton Center Toronto, Canada	Jean Handscombe Program Chair North Board of Education 5050 Yonge Street Toronto, Ontario Canada N2N 5N8
"Pragmatics and Education" Third Language and Language Acquisition Congress	March 21-25, 1983	Gent, Belgium	Secretariat Communication and Cognition Gent State University Blandijnberg 2 B-9000 Gent, Belgium
Spring Meeting of the Linguistics Association of Great Britian	March 23-25, 1983	Sheffield, England	M. Wheeler Dept. of Linguistics University P.O. Box 147 Liverpool L69 3BX Great Britain
Third International Conference for English Historical Linguistics	March 27-30, 1983	Sheffield, England	Department of Linguistics University P.O. Box 147 Liverpool L69 3BX Great Britain
"Motives and Incentives in the Learning of English as a Foreign or Second Language" International Conference of the International Association of Teachers of English as a Foreign Langauge (IATEFL)	April 5-8, 1983	Twikkenham, Middlesex Great Britain	B. Thomas 87 Bennell's Avenue Tankerton, Whitstable Kent CT5 2HR Great Britain
Foreign Language for Business and the Professions (Eastern Michigan University)	April 7-9, 1983	Hoyt Conference Center Eastern Michigan University	Dr. Geoffrey M. Voght Dept. of Foreign Languages and Bilingual Studies Eastern Michigan University Ypsilanti, MI 48197 (313)487-0178/(313)487-0130
"Symposium on the Content and Methods of Language Teaching in Developing Countries and the Production of Teaching Materials Suited to National Needs"	April 25-29, 1983	Unesco Headquarters Paris, France	C. Koptilov Section of Structure and and Content of Education Unesco, 7 place de Fontenoy F-75700 Paris, France

11th Annual State Convention Illinois TESOL/Bilingual Association	April 29-30, 1983	Hilton Hotel Springfield, Illinois	Dr. Elliot Judd University of Illinois Chicago Circle Campus Chicago, IL 60680 (312)996-5158
Tenth Annual Business Meeting and Conference of the New Zealand Association of Language Teachers	May 10-12, 1983	Auckland, New Zealand	D. Thwaite Secretary NZALT P.O. Box 175 Huntly, New Zealand
SPEAQ Convention	June 15-18, 1983	Queen Elizabeth Hotel Montreal, Quebec	SPEAQ Headquarters 2121 St. Mathieu, Suite 1902 Montreal, Quebec Canada H3H 2S3
"ELT Techniques and Methodologies" British Council	June 26-July 8, 1983	Cantebury, England	The Representative The British Council c/o British High Commission 30 Elgin Street Ottawa, Ontario Canada K1P 5K7
TESOL (Teachers of English to Speakers of Other Languages) Summer Institute	July 4-August 12,	Toronto, Canada	J.P.R. Allen Modern Language Centre Ontario Institute for Studies in Education 252 Bloor Street West Toronto, Ontario Canada M5S 1V6
"English for Specific Purposes in the Arab World"	August 7-20, 1983		John Swales Language Studies Unit University of Aston in Birmingham Birmingham B4 7ET England 021-359-3611 Ext. 4238/5918
Sixteenth International Colloquium of AIMAV (Association Internationale pour la Recherche et la Diffusion des Methodes Audio-Visuelles et Structuro-Globales)	September 6-9, 1983	Nijmegen, The Netherlands	H. Bours Department of Applied Linguistics Catholic University Erasmusplein 1, NL-6500 HD Nijmegen The Netherlands
"The Bilingual/Historical/Learner's Dictionary: Terminology Standardization: Computer-Aided Lexicography" International Congress on all Aspects of Lexicography	September 8-12, 1983	Exeter, Great Britain	Dr. R.R.K. Hartmann The Langauge Centre University Exeter Devon EX4 4HQ Great Britain
"The Teaching of Modern Languages" Third National Linguistic Congress of the Linguistic Society of Argentina (SAL) in Cooperation with the Argentinian Association of French Teachers (SAPFESU) and the University in La Plata, Argentina	September 20-24, 1983	La Plata, Argentina	E.D. Evans Dept. of Modern Languages Faculty of Humanities National University Calle 6 y 48 1900 La Plata Argentina

CONFERENCES

ENGLISH FOR SPECIFIC PURPOSES IN THE ARAB WORLD

August 7 - 20, 1983

Language Studies Unit
University of Aston in Birmingham

Rationale

There has not been a regional ESP Conference since that held in Isfahan in 1977. However, there have been many interesting developments in ESP in recent years, both in the Arab world and elsewhere. If we also recognize that those working in ESP often find it difficult to establish and maintain contact with colleagues working in similar organizations, then a 1983 Arab World ESP Colloquium would seem opportune.

Outline Programme

The present plan is to organize the Institute primarily on a workshop basis, and to offer opportunities for presentations and discussions across the full spectrum of ESP Arab World activity.

(a) from initial vocational and technical training courses to English language support for highly-qualified professionals;

(b) from ESP administration to research in Applied Linguistics.

Expected workshop topics will include:

- Arabic-English cross-cultural and contrastive studies, including contrastive textology
- Course and Syllabus design alternatives
- ESP materials and methodologies in and for the Arab world
- Management of ESP Programmes
- Relevance of the new Computer and Video technologies
- Research in ESP and Applied Linguistics in and for the Arab world
- Roles of Service English in Arab World educational and training contexts
- Staff recruitment, training and development
- Study habits and learning contexts in the Arab world

It is also hoped that the Summer Institute will give us a chance to evaluate the current state of ESP in the Arab world, to identify the causes of success and failure, and to consider the establishment of a regional ESP Resource Center.

Reference Material

The Language Studies Unit's extensive ESP Reference Collection will be open throughout the Institute, and we have made provision for a reasonable amount of individual photocopying in the fee. In addition, a collection of highly-relevant material will be prepared for participants.

Accommodation and Other Matters

Single-study bedrooms (with a shared kitchen and bathroom) will be available on campus, and the cost of this accommodation is included in the residential Institute fee. As Aston is situated in the centre of Birmingham, we do not plan to make any special arrangements for food. The fee also includes a trip on Sunday, August 14 and opening and closing receptions. (If anybody prefers hotel accommodation we can help with the booking.)

Residential fee: £270

Non-residential fee: £190

(Some reduction may be possible for postgraduate students.)

Enquiries to and registration forms from:

John Swales, ESP Institute Director
Language Studies Unit
University of Aston in Birmingham
Birmingham B4 7ET
England
(021-359-3911, Ext. 4238/5918)

* * *

CONFERENCE PROCEEDINGS

Conference proceedings from the International Symposium on LSP, held at Eindhoven University of Technology, The Netherlands, August 2-4, 1982, will be published in early 1983.

The theme of the conference was Reading for Professional Purposes in Native and Foreign Languages. The conference examined three major aspects of this theme: Basic theory and hypothesis testing studies; Linguistic analyses of text; Teaching materials and the LSP curriculum.

Four keynote addresses were given: a) Reading for professional purposes—psycholinguistic evidence in a cross linguistic perspective (J.M. Ulijn); b) Cognitive processes in reading in a foreign language (R. de Beaugrande); c) Article use in reading scientific and technical English discourse (L. Trimble and M. Todd-Trimble); d) The use of mentalistic measures in determining LSP reading problems (A.D. Cohen).

For further information, contact: K. Nettle; Heinemann Educational Books; 22 Bedford Square; London WC 3HH, Great Britain.

TECHNICAL ENGLISH FOR ESL STUDENTS

Diana Mae Sims
Texas Instruments Incorporated

The following is a recent letter from a college student studying English as a second Language (ESL):

> Dear Dr. Sims:
>
> During Spring 1979 semester I was one of your students in Applied Communication II class, at Tarrant County Junior College, South Campus. Such a wonderful time I have ever had in other classes to be in the class with you. I hope that will never passed.
>
> I graduated from Tarrant County Junior College last Fall '80 semester with an A.A.S. degree in Drafting and Design Technology. I am seeking employment now, would you be kind enough to allow me to give your name as a reference? Also, I intend to go to U.T.A. in next semester to study about Mechanical Engineering.
>
> I am going to send out my resumes and I hope that I will hear from you as soon as possible. I will be happy to listen your advises as you was my wonderful teacher, who I have ever forgotten.
>
> Thank you for all your past kindnesses to me.
>
> Best regards,
> Trung Minh Ly

The letter portrays Trung, its writer, as outgoing, careful, and professional in his approach to work. Incidentally, this Vietnamese young man has finished a first course in college-level English. Based upon his letter, what should a teacher propose as the kind of English study which Trung now needs? What sort of communication skills should he study to equip him for a career and for further college work?

In response, I would like to make two propositions. First, what Trung and others like him need is the study of technical writing, which I prefer to call "document design." Second, what colleges are teaching under the rubric of technical writing is not reflective of real-world occupational communication. This essay shows why technical writing is essential for college ESL and how courses can be designed to develop occupational communication skills.

I have found that the chief difference between ESL and native-speaking students at the college level is their lexicon. The distinction centers on vocabulary size and extent of semantic features. These linguistic areas are generally improved upon by ESL speakers over time. Their remaining needs, having to do with writing per se, are shared by native speakers of English. Indeed, my propositions covering these remaining needs are apropos for all learners. The discussion covers four main topics:

1. My background supporting my views on these issues.
2. A brief survey of the composition that colleges teach and what observers find wrong with it.
3. Some observations about the nature and importance of technical writing.
4. Suggestions for the content of college courses in technical writing.

First, then, my credentials: I am associated with Texas Instruments as a documentation specialist. I also teach technical writing courses at Tarrant County Junior College. Generally, a class includes ESL students, since TCJC makes no distinction between ESL and native speakers for this kind of English. Thus, I have been fortunate to be active in technical writing from a special vantage point of both pedagogical and applied activities.

With regard to teaching technical writing, the state of the art is admirably covered in a study by the American Institute for Research. The study appears in a book entitled "Teaching College Students How to Write: Training Opportunities for Document Designers" by Janice C. Redish and Kathryn Racette (Washington, D.C., 1979). The authors recount the kinds of writing taught in American English, the tools being used, and specific institutions of higher learning with descriptions of writing programs. On the opening two pages of their report, Redish and Racette make a distinction between composition and document design:

> We use the term "document design" to emphasize our interest in a broad view of the composition process. We include not only stylistics, but also audience, purpose, and the use of graphics.
>
> Our focus on document design sets two different dimensions for our study. First of all, we are interested only in training that emphasizes non-fiction work; we are interested in courses in expository, business, professional, and technical writing, but not in creative writing courses. Secondly, we are not interested in the teaching of the writing process; we are not primarily interested in error-correction or in the teaching of basic skills in sentence-combining, grammar, or punctuation.

In the definition, the authors pinpoint a leading problem for ESL and other college students: the focus of existing programs on stylistics and error correction. There is little study of readership, purposes, formats, visuals, or levels of edit for production of a document.

From their study of 60 schools, federal agencies, and professional organizations, Redish and Racette found a number of significant trends in the teaching of college writing. Paraphrases of their findings are as follows:

1. The last 10 years have been unprecedented in the growth of college composition courses Nevertheless, writing is "the

stepchild of college English departments," most of which consider literature more intellectually respectable (Stewart, 1978, quoted in Redish and Racette, 2-3).

2. Though advanced composition courses are becoming more popular, no concensus exists on what to teach in these courses.
3. Writing labs are available to students at most schools, but they are mostly clinics concentrating on mechanics and grammar for underprepared students.
4. While technical writing "is the most appropriate model for a classroom-based course" (Redish and Racette, 31), few nontechnical students enroll in such a course. The reason is that the teaching of technical writing too often is an attempt to teach the rhetorical forms or vocabulary of a particular field like the medical profession or oil industry . Such a focus narrows a course to only a few interested students. It also fails to teach those who do enroll how to perform communicatively in their careers.
5. Technical writing courses rarely teach students to write for lay audiences. Instead they allow or encourage writing for members of the same profession.
6. Finally, courses seldom evaluate student work in terms of use—that is, in terms of whether an intended audience can read and effectively use the student's document.

Based on these findings, the state of the art of teaching college English, including ESL, is clearly characterized by the freshman-composition syndrome. Little substantive is done with the critical questions of audience, graphics, and review of writing as a process.

I want to turn now to observations on what people do in occupational writing. My list includes the following:

1. Career people must be able to communicate well with associates on the job. If an employee cannot do so, little can be accomplished. This paramount skill involves activities like telephone conversations, interviews, meetings, problem-solving conferences, and project reviews where people cooperate to get work done.
2. The writing which people do at work must be readable and comprehensible to appropriate audiences. Regardless of how pleasant one's style of how faithful it is to Aristotelian rhetoric, if an audience cannot use the document, it is worthless.
3. Documents in occupational settings rely on more than orthography to convey meaning. They use formatting, whitespace, visuals, and a variety of media outputs for emphasis and clarification.

1. Writing for industry and professions is rapidly becoming computer-based in input and computer-generated in output. This profound change means that former modes of text-composing and traditional typography are no longer relevent for documentation in many instances.
2. Paradoxically, much occupational writing has a general audience. Frequently, management, technicians, clerical workers, and professionals are all readers of the same document. Technical materials for this range of audience types need to contain simple language.

Having looked at existing problems in the field, we may ask what kind of writing should we be teaching ESL and native-English students in college? Following are a philosophy and general outline for such a college-credit course:

1. The principles taught should be general enough to interest students in any degree field. The content of each student's writing may deal with a particular field of study. For example, for oral reports, a student in mechanical engineering might discuss an air conditioning installation, while a student in computer science might describe an interactive CRT.
2. Oral skills should be covered in an applied way. Situations such as conferences and interviews should be studied and enacted. (I find that students master oral skills simply by having to get up in front of groups and by performing.)
3. There should be an accountability for the effectiveness of written documentation. As an example, students might attempt to draw a mechanism based upon the written description of another student.
4. Class study should deal with all elements of document design, including formatting, visuals, and print media.
5. Student should study word-processing equipment and types of computer output in order to learn the advantages and limitations of computer-generated material. Many techniques can be mastered to supplement or offset these features. For example, block-identification and centering in computer-generated text can replace underlining for emphasis.
6. Students should study levels of edit in the process of writing documents. This process includes edit for company policy mechanics, consistency, technical content, call-outs for visuals, and so on.
7. Courses should stress simple language and familiar analogies as ways of developing explanations for complex ideas or things. Admittedly, this suggestion is extremely difficult for persons to accept who have never done document design.

TECHNICAL ENGLISH FOR ESL STUDENTS (Continued)

8. Finally, students should submit their work for successive reviews by concerned readers and users. In this part of the writing process, they can learn the need for compromising artistic principles with the exigencies of getting a task done in an alloted time.

How can schools implement a course like the one I have suggested? The key is teachers. Colleges need technical writing teachers who have served in business or science, as there is no substitute for experience in occupational communication. Second, schools need to remodel writing syllabi away from concentration on style and toward an applied approach. The change entails study of audience and reader feedback, the use of computers, visuals to convey a message, oral communication, and review of student writing. At present none of these features is considered the purview of college composition. For our ESL students and others, we need quickly and soon to incorporate them.

REFERENCES

1979

Redish, Janice C., and Kathryn Racette.

Teaching College Students How to Write: Training Opportunities for Document Designers.

Washington, D.C.: American Institutes for Research.

1978

Stewart, Donald C.

"A Look at Freshman Comp Texts". CEA Forum 9:10 - 14.

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14 The Crescent,
Bedrod MK40 2RU
United Kingdom

STUDIES IN ESP AT THE UNIVERSITY OF MINNESOTA

The University of Minnesota's Working Papers in ESL (Volume 2) is now available. The papers in this volume deal with various aspects of need assessment in English for Special Purposes (ESP). The articles are representative of recent activity by the University of Minnesota's Program in English as a Second Language.

The table of contents is included below:

Karen Sorensen
"Modifying an ESP Course Syllabus and Materials Through a Teacher-Planned Needs Assessment"

Eric Nelson
"Refining the Notion of 'Definition' in Scientific and Technical English"

Leslie Levine
"The Influence of Social Role on Communication in a Cross-Cultural Medical Interview"

Susan Gillette
"Lecture Discourse of a Foreign TA: A Preliminary Needs Assessment"

Susan English
"Redundancy in Lecture Comprehension: A Case Study of a Non-Native Listener"

John Een
"Tense Usage in Reporting Research in Geotechnical Writing"

Jim Davis
"The Relationship of Verbal and Nonverbal Elements in a Technical Manual"

Subscriptions are available from:

Kate Winkler
Linguistics Department
142 Klaeber Court
University of Minnesota
Minneapolis, MN 55455

The cost is $5 per issue, plus postage.

* * *

Several longer papers on English for Special Purposes have been written at the University of Minnesota over the last several years. Most of these have been Masters' Degree qualifying papers ("Plan B" Papers), and are on file in the ESL Office, 152 Klaeber Court, University of Minnesota, Minneapolis 55455. Titles and abstracts of some of these papers are listed below:

CAROLAN, DENISE. Multiple Choice Tests and Foreign Students: Some Observaions and Generalizations. 1980.

It has been suggested that foreign students experience difficulty with multiple choice tests in academic courses, even after receiving ESL instruction. Very little research has been done to investigate this claim. In this pilot study, the investigator selected an exam containing multiple choice questions, which was given in a graduate-level agronomy course. She interviewed both the professor who gave the test and the American and foreign students who took it. A hierarchy of difficulty for question types for foreign students was suggested, based on an item analysis of the test.

CLARK, MORRIS RUSSELL JR. A Model for Teaching Reading through English for Special Purposes: A Short Course in the Language and Culture of Computers for Advanced Students of English as a Second Language. 1976.

A brief survey of the literature on ESP, and a model for a short transitional course in the language of computer programming for advanced ESL students. The paper proposes ways of preparing foreign students for academic coursework in computer science, and, specifically, it suggests techniques to help the student improve reading comprehension and vocabulary. The project encompasses an overall curriculum design, including original and adapted materials, with twelve complete lessons and a final quiz.

ENGLISH, SUSAN LEWIS. Redundancy in Lecture Comprehension: A Case Study of a Non-Native Listener. 1980.

This case study of a Korean graduate student in business management at the University of Minnesota examines the following areas of difficulty in lecture comprehension: 1) speech perception; 2) functions of discourse; 3) kinesics; and 4) presupposition, both linguistic and cultural. All four areas are shown to contribute to the redundancy of the spoken message. It is hypothesized that an increased redundancy of those factors of the message available to non-natives is required by both listeners and speakers.

FERNALLD, FAITH. Two Units for the Teaching of EST to a Class of Students with Interests in Various Fields of Science. 1978.

The problem of teaching EST in an intensive program like the one at the University of Minnesota is that the class consists of students from various areas of science. In order to prepare lessons relating directly to the specific students' disciplines, the teacher must wait until shortly before the class begins when s/he knows the acadmic fields of the students. The purpose of this paper is to provide teaching materials related to science in general for the teacher to use while s/he is preparing lessons tailored to the students' needs. The paper begins with a brief review of EST literature to date, and ends with two lessons, one on atomic energy and the other on the scientific experiment.

STUDIES IN ESP AT THE UNIVERSITY OF MINNESOTA (Continued)

Though they concentrate on reading and writing, the lessons involve all five skills. They are accompanied by a detailed explanation of how to teach them.

FERNALLD, FAITH. A Study of the Comparative Frequency of Passives in Some College Freshman Texts. 1978.

A knowledge of the type of English to which foreign students will be exposed once they commence their acadmic studies is necessary for designing effective English programs. This study looks at the incidence of one aspect of the English language: the passive voice, in equal-sized samples from introductory college-level textbooks in six different subject areas (chemistry, economics, freshman composition, history, physics, sociology). The occurrences of the passive voice, defined as any form of be followed by a past participle (excluding those with no infinitive form such as self-inflicted or unknown), are quantified, classified, and compared across the subject areas. Information concerning the relationship of subject matter to the type and frequency of use of the passive voice can be helpful in designing materials tailored to subject areas.

GILLETTE, SUSAN. Lecture Discourse of a Foreign TA: A Preliminary Needs Assessment. 1980.

To date, lecture discourse in ESP has been examined primarily from the point of view of what the native-speaker lecturer does and how the foreign student understands or does not understand that comunication. With the increasing number of foreign TAs giving lectures in American universities, and with a concomitant decreasing tolerance of foreigners on the part of American students, it is important to examine lecture discourse from another perspective--the communication of the foreign TA. This paper compares and contrasts the lecture discourse of a Korean and of an American TA both of whom were giving lectures on the same area of Astronomy. Differences in the discourse of the two TAs are described and analyzed, with special focus on differences in the communication strategies used, and on differences in cohesion and coherence in the discourse.

LEVINE. LESLIE K. Contrastive Analysis of Passive Voice in English and Russian in the Context of a paper on Astrophysics. 1981.

In a recent study by Tarone, Dwyer, Gillete and Icke, it was revealed that in two journal articles on astrophysics, active voice is predominant and can be linked to specific rhetorical conditions. This paper follows their study to investigate whether the findings concerning the relative frequency of passive voice can be extended to scientific writing style in the same discipline in Russian. Through contrastive analysis of passive in English and Russian, we find that there are two structures for Russian in complementary distribution where English has only one. In examining the passive in context, we find the results to be consistent with those found by Tarone et. al. There is a definite preference for active voice and a significant occurrence of we + active voice as well, which seems to appear in a certain rhetorical context.

LEVINE, LESLIE K. The Influence of Social Role on Communication in a Cross-Cultural Medical Interview. 1980.

This study of a medical interview examines the interaction between a Russian immigrant patient and American medical practitioners from the viewpoint of the social roles of the participants and the pattern of communication arising from these roles. The goal of the study is to examine how an American doctor and a nurse practitioner use language to serve their respective roles and to describe the pattern of communication occurring in their interaction with a Russian immigrant patient. It is claimed that the opprtunity the patient had to request repairs from the speaker was more fundamental to his understanding of any one utterance than the grammatical structure or vocabulary of that utterance.

PERRY, WILLIAM S. Topics in Minnesota Agriculture: Listening Comprehension Lectures and Exercises. 1978.

This paper tries to integrate theoretical and practical insights on listening comprehension into a series of exercises which accompany videotaped lectures. The exercises are based on specific guidelines suggested by Joan Morley. The materials focus on agriculture in Minnesota and can be used for either general or specific purposes. Each of the ten videotaped segments is accompanied by a set of exercises, a vocabulary list and notes to the teacher.

SORENSEN, KAREN. Modifying an ESP Course Syllabus and Materials Through a Teacher-Planned Needs Assessment. 1981.

There is a growing controversy over the manner in which needs assessments should be applied to curriculum design in ESP. Hutchinson and Waters (1980) for example, have argued that the complexities of conducting and using needs assessments have made the analysis of learners' needs a specialist's affair, and have, in effect, lessened the role of the classroom teacher in planning ESP courses. This paper shows how a teacher-planned needs assessment was used to modify an ESP course syllabus, and how the specific information obtained in that needs assessment was used to develop materials previously used in the course. The intention here is not to propose yet another "model" for course design, but rather to show that interested classroom teachers can still find needs assessment a manageable and effective approach to solving curriculum problems.□

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English For Specific Purposes

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THE UNDERSTANDING OF EST LITERATURE 1

THE UNDERSTANDING OF EST LITERATURE AS VISUALIZED BY A CHINESE SCHOLAR

PART I

Li Xueping
Visiting Scholar at the Department of English
Iowa State University

ABSTRACT

This paper states the view of a Chinese EST pedagogist on the basis of his 26 years' experience in teaching EST and ESL in South China Institute of Technology, Guangzhou, the People's Republic of China.

In the understanding of EST sentences, four factors are indispensable.

(1) Vocabulary

EST consists of a number of technical words contained in a matrix of basic-word stock. Of course, it is difficult to draw a hard-and-fast line of demarcation between the "technical words" and the "basic words" of the English language; especially when one comes to the problem of "sub-technical" words which are something lying in-between. There is, however, some sort of differentiation that can be observed between these two categories of English vocabulary. For example, most words which are more or less "technical" have only denotations, while most "basic words" have denotations as well as connotations. It is the "basic words" rather than the "technical words" that create difficulties in understanding scientific English discourses, particularly from the viewpoint of a foreign student. Words having only one or a few denotative meanings like the word transistor", which cannot mean anything else than the electronic device that we call a "transistor", practically demand nothing more than efforts to memorize them. However, "basic words" are different. Not only do most of them have multi-meanings, but also they are in most cases used in a very flexible way. Their usage is generally invariably linked with such problems as contextual collocations, idiomatic diction, and standard usage. As a famous example, the word "have" or "make" has a dozen meanings dependent upon a great variety of contextual situations. Likewise, "look for", "look after", "look at", "look into" all are different word combinations that must in no case be confused with one another. Sometimes, seemingly synonymous words have, in fact, important lexical differences between them. For example, "long" and "lengthy" are synonyms. But a "long" research report may sometimes be an absolute necessity; while a "lengthy" research report should be avoided. Failure to observe these minute, but not insignificant, differences means failure to thoroughly understand the whole thing.

Therefore, this paper argues that in EST pedagogics emphasis be laid on the "basic EST words", especially words having multiple meanings or different functions under different circumstances. This problem may not seem so serious to native English speakers since they can very well manipulate the basic words without even noticing their peculiarities. But for foreign students, e.g. the Chinese students, it is a wholly different story. A text-book compiled on the basis of deliberate integration of the basic EST word stock into the texts with sufficient and systematic repetition of each word throughout the book will be highly desireable and helpful. Students will draw much benefit from such a book since frequent contact brings about acquaintance.

As to the technical words, they are by no means unimportant. They constitute the mainstay in vocabulary teaching subsequent to the initial period. In teaching the technical words, however, a different method needs to be used. Repetition is still necessary, but word formation rules (i.e. derivation, conversion, combination, and abbreviation) should be given the most prominent place.

(2) Grammar

Understanding the grammatical structure of English is important; but contrasting the similarities and dissimilarities between English and the native tongue is more important. Science students learning EST are mostly grown-ups who, having become acquainted with the native language, are apt to compare the foreign language to the mother tongue consciously or unconsciously. This is not something always undesirable, but something that must be taken advantage of and favorably turned into a useful factor.

As far as sentence structure is concerned, the most striking contrast between the English and the Chinese languages probably lies in the word order in the sentence. Although it is open to question that comparison between the two languages would show that the fundamental parts(1) of a sentence are basically the same in word order (e.g. SV, SVP, SVO, SVOC), we must not lose sight of the modifiers(2), most of which have very different word order in the two languages. What is more, it is the modifiers, not the fundamental parts, that usually team in a sentence. Hence, to a Chinese student, it is definitely the modifiers in an English sentence that really create difficulties in understanding English scientific literature.

Proceeding from this viewpoint, this paper suggests, that, initially, students be familiar with English sentence patterns primarily classified in terms of the fundamental parts, e.g.

I. Principal patterns:

A. active sentences

1. SV	Airplanes fly.
2. SVP	Oxygen is a gas. Oxygen is colorless.
3. SVO	Conductors conduct electricity.
4. SVOO	The sun gives us light.
5. SVOC	We call it laser. We find it useful. We made the body move. We kept the body moving.

B. passive sentences

1. SV	The problem has been solved.
2. SVO retained	Each element is assigned a symbol. A symbol is assinged each element.
3. SVC	It is called a laser. It is considered useful. The body was made to move. The body was kept moving.

II. Special patterns:

question	Does a gas conduct electricity?
command	Explain it, please.
existential sentence	There are many forms of energy.
elliptical sentence	H stands for hydrogen, O for oxygen.
emphatic sentence	Only thus can we do it better. Oxygen does support burning. It is the protons that are positive.
sentence with anticipatory "it"	It is necessary < to . . . / that . . . We deem it necessary < to . . . / that . . .
"the more . . . the more . . ." comparative sentence"	The more the better.

THE UNDERSTANDING OF EST LITERATURE . . . (Continued)

It is important to note that each of these patterns has a structural meaning of its own. As long as a student can make out the pattern of a specific sentence he comes across, he should be able to catch the basic meaning of the sentence. But what about the modifiers? Statistics show that about 50 percent of the modifiers in English sentences are pre-positional , and 50 percent post-positional. Again, it is fortunate that the pre-positional modfiers have about the same word order in the two languages of English and Chinese. Only the post-positional modifiers differ, because there are literally no post-positional attributive modifiers in the Chinese language. As a consequence, what a Chinese student has first and foremost to do in analyzing an English sentence is to focus his efforts on the post-positional modifiers, while treating the "pre-positional modifier + head word" as a single word group. For example, if a student can find out the post-positional modifiers in the following sentence and put them aside on a temporary basis, he will be well able to discern the sentence pattern:

-- An electric current in a wire is an incessant flow of electrons produced by a difference in electrical potential that exists between the terminals of the wire.

-- An electric current in a wire is an incessant flow of electrons produced by a difference in electrical potential that exists between the terminals of the wire.

-- An electric current . . . is an incessant flow . . .

-- SENTENCE PATTERN: SVP

The next step is to "reinstate" the post-positional modifiers in the sentence and judge what word or word group they modify. This judgement is of paramount significance, for misinterpretation of their functions will inevitably lead to the misunderstanding of the overall meaning. Since the modifiers in question are post-positional, they necessarily modify some word or word group that precedes them. Therefore, we can start from the first preceding word(3) and judge, in terms of logical or technological contents (and sometimes of idiomatic use of word) if the modifier does modify this word or word group, e.g.

X x x x x x x x x x x x x x x x x x x.

In case the modfier does not modify this first word or word group, a second one is tried until the most reasonable modified element is reached(4), e.g.

X x x x x x x x x x x x x x x x x x x.

Take for example the above-cited sentence again:

-- An electric current $\underbrace{\text{in a wire}}_{1}$ is an incessant flow $\underbrace{\text{of electrons}}_{2}$ $\underbrace{\text{produced by a difference}}_{3}$

$\underbrace{\text{in electrical potential}}_{4}$ $\underbrace{\text{that exists}}_{5}$ $\underbrace{\text{between the terminals}}_{6}$ $\underbrace{\text{of the wire.}}_{7}$

It may be seen that:

modifier (1) modifies "an electric current", because "an electric current in a wire" is both a logically and technologically correct expresion;

modifier (2) modifies "an incessant flow";

modifier (3) does not modify "electrons", because "electrons produced by a difference . . . " is technologically incorrect; (It modifies "an incessant flow (of electrons."); instead.

modifier (4) modifies "a difference";

modifier (5) does not modify "electrical potential", because technologically "electrical potential" does not exists between the terminals; (It modifies "a difference" instead.);

modifier (5) is a clause; within this clause, modifer (6) modifies "exists" and modifer (7) modifies "the terminals".

Now having made clear the sentence pattern and all the modifier-modified relations, the student has come to the botton of the sentence structure and can easily come to understand the overall meaning of the sentence. A sentence analysis made in this way is far more reasonable and useful than the traditional way of telling which word is the Subject of the sentence and which word is the Predicate, etc. Undoubtedly, the traditional sentence-part-labeling method establishes itself on something amounting to the pre-understanding of the meaning of the sentence. This is incompatible with the purpose of EST pedagogics, since in EST teaching students are expected to proceed from what they don't understand to a more or less thorough understanding. Sentence analysis should serve as a means of decoding the sentence in order to reach its ultimate meaning. (Continued on Page 7)

RESOURCES

LEGAL ENGLISH

Dickerson, Reed. Materials on Legal Drafting. St. Paul, Minnesota: West Publishing, 1981, 425 pp.

Dickerson's text uses a non-traditional approach to give both instructors and students a broader perspective on the task of legal drafting. He tries also to show the interrelationship between clear thinking and legal drafting such that clear thinkinng improves legal drafting and that learning to draft well can improve thinking.

There is an explicit teacher's manual containing details on how to teach the course and specific recommendations on how to use the text. The teacher's manual also contains a number of very useful teaching aids, including a sample introductory lecture and masterpages of all the exercises.

(Abstracted from "Simply Stated, No. 26.)

* * *

Mellinkoff, David. Legal Writing: Sense and Nonsense. St. Paul, Minnesota: West Publishing, 1982, 242 pp.

Sense and Nonsense covers some of the same subject matter as an earlier Mellinkoff text entitled The Language of Law which documented the history of legal language and explained how to write clearly and effectively. Sense and Nonsense is designed as a concise practical guide for good legal writing. It is usable by instructors for a variety of courses on clear legal writing as well as by writers concerned with improving legal language.

It comes with a teacher's manual explaining suggested plans for teaching the course, for integrating instruction and writing assignments as well as a detailed outline of what information to present at each class session and how to present it.

(Abstracted from "Simply Stated, No. 26.)

* * *

TEXTS

Pilbeam, Adrian, Mark Ellis and Nina O'Driscoll. The Economist: An English Language Guide. London: The Economist Newspaper Ltd., 64 pp.

The Guide highlights and practices language features commonly found in The Economist and similar publications. It is designed for the user of English in business, finance, science, technology, politics and current affairs. The Guide is suitable for upper intermediate and advanced learners of English.

For more information, write:
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The Editor; Indian Journal of Applied Linguistics; Bahri Publications Private Ltd.; 57 Sant Nagar, New Delhi 110065, INDIA.

* * *

Jungo, M.E. (comp.) International Bibliography for a Didactics of Early Bilingualism in the Education of Underprivileged Children, Especially Children of Migrant Workers. Einsiedeln: Benziger AG, Graphischer Betrieb. 1982.

Available in Canada: Presses de l'Universitè Laval, C.P. 2447, Quebec, Canada G1K 7R4
Available in Other Countries: Bucherdienst, CH-8840 Einsiedeln, Switzerland.

* * *

Winitz, Harris, ed. Native Language and Foreign Language Acquisition. New York, New York: The New York Academy of Sciences, 1981, 370 pp.

The 32 presentations published in this volume explore various components of first and second language acquisition and their interrelationships. The findings have direct application for native language and for foreign language research and instruction, including potential connections between areas of study such as cognitive and biological considerations, universal acquisition processes in first and second language acquisition sequences of language stages and foreign language teaching.

Contents include Differences and Similarities between First and Second Language Acquisition; Neurophysiological Processes in Language Acquisition; Phonology and Phonetics; Syntax, Semantics, and Pragmatics--First Language; Syntax, Semantics and Pragmatics--Second Language; Implications for Learning a Second Language.

* * * BOOK REVIEW * * *

By Eve Sanchez

COMMUNICATION SKILLS FOR THE FOREIGN-BORN PROFESSIONAL
Gregory A. Barnes

Description:

As its title implies, this book provides a synthesis of communication skills needed by professionals. Basically, the author divides these skills into three areas: Nonverbal, Reading, and Writing. More of the book is devoted to writing than the other two skills, although the author states in his preface that "Only some of [the necessary] skills are linguistic; others are nonverbal, cognitive, 'compensatory' skills which have equal importance for effective communication."

Target Market:

The book is intended for an advanced level "foreign-born" professional. One wonders at the reasoning behind the term foreign-born" because this text could be equally helpful to ESL speakers born in this country as well. In fact, the topics covered in the book are similar to those covered in a native speaker communications text.

The author assumes that his readers (1) work or study in North America, (2) work with Americans or other native English speakers, or (3) hope to pursue career interests in an English speaking environment.*

The reader is expected to already speak and read English well, have a need to read technical materials, write occasionally and give oral presentations to superiors and colleagues.

Objectives:

The book is intended to give its readers the ability to deal with the "culture" of English-speaking professional people and "an understanding of the surprising variety of skills needed to perform successfully in a professional role."

A minor point, but this reviewer's impression is that there is a slight hint of condescending tone in certain areas. The phrase "foreign-born" in the title itself is reminiscent of an outmoded attitude of superiority. Also, it is mentioned in the introduction that it is desireable if children force adults to speak English in the home. Seemingly, no importance is given to the fact that those same children are losing the opportunity to learn the language of their heritage.

Format/Organization:

The content of the book is divided into three basic areas of communication: I. Verbal and Nonverbal Communication; II. Reading; and III. Writing. There is an additional writing section, IV. Technical Writing, as well as three Appendices: I. Exercises, II. Mechanics, and III. Grammar Handbook.

Objectives are outlined at the beginning of each section, giving the reader a clear idea of the focus of each unit. Another helpful factor is that each chapter within the units has a one paragraph summary at the end. The numbering of the chapters themselves is somewhat distracting because their numbers do not correspond to the units in which they are contained but rather they are numbered consecutively from beginning to end of the book. This seems in direct contrast to the explanation of a system of outlining given in the writing unit. The chapters themselves are relatively short, about five pages, and clearly written. At times it seems that more could or should be contained in each chapter, or certain chapters combined. For example, there are two separte chapers on visuals, one for oral reports and one for written. There is some overlap of content here and these two chapters could have been condensed into one, or at least references could have been made from one to the other. Neither is there any reference to visuals within Chapter II, Reports, although a later chapter (13) deals exclusively with this. While it is true that visuals are not an obligatory part of a report, they are very often included and some reference to the later chapter should have been made to avoid the student's overlooking that chapter altogether.

The same type of organizational question arises in Part I, Verbal and Nonverbal Communication. Within this section, Chapter 3 is on Public Speaking and Chapter 4 is on Oral Presentations. Granted, these are two different types of presentations but again, there is an overlap of content (visuals, for example) which is not mentioned in the chapters.

---

* A note to the reader, Communication Skills for the Foreign Born Professional, Gregory A. Barnes

BOOK REVIEW (Continued)

Application exercises are included for all the chapters but they come at the end in Appendix I. It would have enlivened the book's style to include them with the corresponding readings as application of theory.

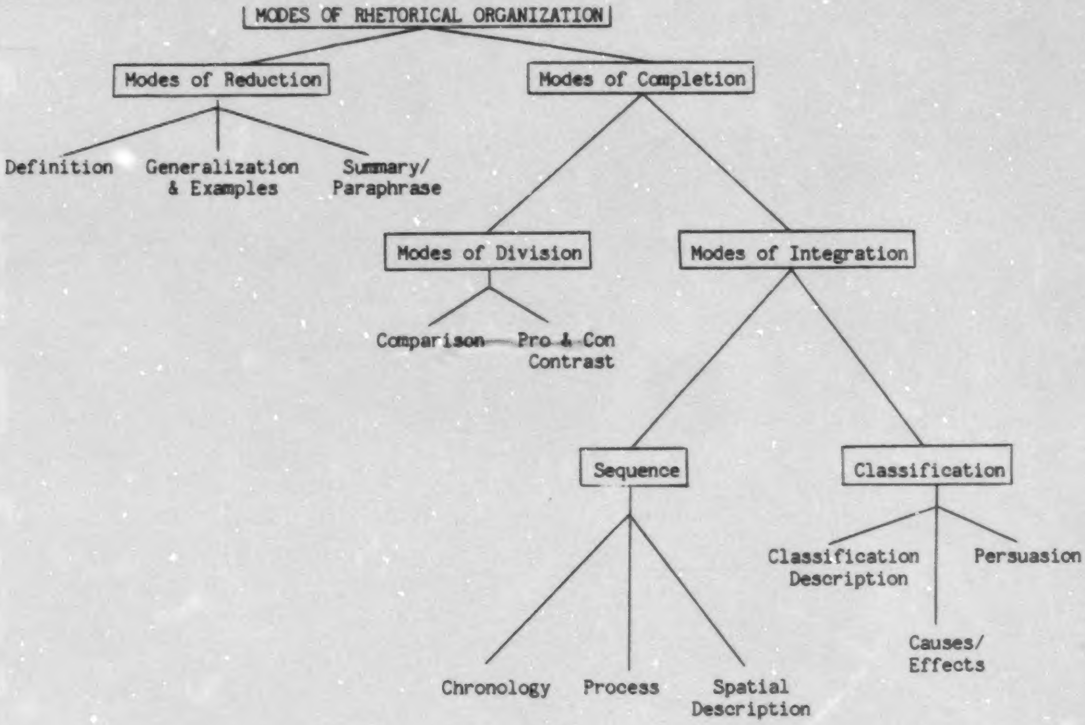
Appendices II and III, Mechanics and Grammar Handbook, are very helpful for reference. A teacher's manual with answers to these exercises would certainly be a more helpful addition.

Methodological Approach:

In general, this text uses a cognitive approach. Although it is suggested that the book could be used either as a self-study guide or in a course, the absence of a teacher's manual or answers to exercises, make self study difficult. It appears to be a rather teacher-oriented text as far as applying theory is concerned.

Methods of Presentation:

Worthy of note here are some illustrations throughout the book which attempt to synthesize information. The best example is from the Writing unit, a pictorial representation of different rhetorical modes:


MODES OF RHETORICAL ORGANIZATION
Modes of Reduction
Modes of Completion
Definition
Generalization & Examples
Summary/ Paraphrase
Modes of Division
Modes of Integration
Comparison
Pro & Con Contrast
Sequence
Classification
Classification Description
Persuasion
Causes/ Effects
Chronology
Process
Spatial Description

Other very helpful illustrations such as samples of note taking in margins are given in the reading section.

Summary:

In general the book provides a good synthesis of information necessary for communication, although the non-verbal unit could have been stressed more. It is definitely geared toward highly motivated students who can and will do reading on their own.☐

THE UNDERSTANDING OF EST LITERATURE . . . (Continued)

In this connection, two more points need to be clarified. First, we know where there are six major post-positional modifiers in English, i.e. Prepositional Phrase, Participle Phrase, Infinitive (Phrase), Adjective Clause, Adverbial Clause, Adjective + Prepositional/Infinitive Phrase. But how can we sort out these six categories of phrase and clause? The answer is that we do this through identifying the structure words (prepositions, subordinative conjunctions, relative pronouns, etc.) and certain inflectional endings of the verb (-ing, -ed). These structure words and inflectional endings must invariably be well dealt with by anybody who is to know the English language, no matter what method of analysis he is to use. Second, as phrases and clauses can also appear as the fundamental parts of a sentence, how can we differentiate between their functions? The answer is that a phrase or clause playing the role of a fundamental part cannot be "put aside" during the course of analysis. An example like the following will suffice to explain the situation:

-- A fact $\underbrace{\text{that deserves attention}}_{1}$ is $\underbrace{\text{that a transistor has three terminals.}}_{2}$

Clause (1) can be "put aside" (omitted), hence it is a modifier.

Clause (2) can not; therefore, it is a fundamental part of the sentence (in this case, a Predicate.)

Where the relative pronoun does not appear in an adjective clause, the clause can also be easily detected. For example, in "The device we use to rectify a current is called a rectifier", the deletion of the infinitive phrase "to rectify a current" (a post-positional modifier) will clearly reveal the sentence fundamental parts in the form of SSVVC, from which it can easily be deduced that the SV in the middle is a clause. Hence, the sentence has a pattern of S[SV]VC, where [SV] (we use) is a clause embedded in the sentence.

In a word, a format of grammatical analysis like the above is strongly advocated by this paper.□

(Continued in April 1983, Issue 73)

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THE UNDERSTANDING OF EST LITERATURE . 1

THE UNDERSTANDING OF EST LITERATURE AS VISUALIZED BY A CHINESE SCHOLAR

PART II

Li Xueping
Visiting Scholar at the Department of English
Iowa State University

(3) Idiomatic Usage

By the term "idiomatic usage" we mean two things:
(1) Idiomatic phrases whose meanings cannot be surmised directly from the individual component words, e.g.

— Man's conquer of the outer space will amount to the labors of Hercules.
— When Edison tried to make the first carbon filament, he did not have the cards in his hand.

Constructions such as "in order that", "so as to", "as long as", "so far as . . . is concerned" also belong to this class, because they, though very familiar to native speakers of English, may present unexpected difficulties to a foreign student who is not acquainted with them. The only way to deal with these idiomatic phrases is perhaps to call attention to their existence in the English language and to treat them as single vocabulary items when we come to learn them.

(2) Idiomatic constructions such as obligatory collocations, habitual combinations, and similar structures. For example, "consist" is invariably used with "of" or "in" with different lexical contents. "Depend" and "rely" are generally used with "on", or "upon"; so are "dependence", "dependent", and "reliance". But "independent" is different; it is used with "of". Moreover, we say "take measures", "adopt measures", but never "get measures". Some verbs are used with an infinitive (e.g. fail, expect); some a gerund (e.g. finish, enjoy). Failure to know these rules will put the student in great embarrassment when he comes to read a scientific paper. Let's see two examples:

— A machine consists in many instances from a small motor to a gigantic lathe of very complicated parts.
— This article is based upon reports on scientific matter prepared by different scientists.

In the first sentence, if the student does not know that "consist" is linked to "of", he will most likely find difficulty in understanding the whole sentence. In the second sentence, "prepared by different scientists" should refer to "reports", not "matter", because while we say "We prepare reports" we don't say "We prepare matter". Constructions like these are abundant in the English language, but they are not infrequently neglected by language teachers. Take for example the situation in China. Foreign teachers, having a tacit knowledge of the language themselves, usually do not realize the difficulties these constructions bring forth to Chinese students. Chinese teachers, on the other hand, devote most of their attention to grammar and vocabulary, thinking that "vocabulary + grammar" makes up the language one learns. As a matter of fact, idiomatic usage counts as much in EST reading as do grammatical rules. It is something that grammar falls short in coping with. To lose sight of the idomatic usage is to stay blind to one of the most important facets in English language teaching.

THE UNDERSTANDING OF EST LITERATURE . . .
(Continued)

(4) Knowledge of the Technology Concerned

Science students not infrequently think that, taking advantage of their knowledge of the technology concerned, they can pretty well read scientific literature even without referring to linguistic aspects. On the other hand, linguists insist that discourse analysis is everything in understanding EST and that, knowing technical contents of the discourse being nothing more than the end result of the analysis, technical knowledge cannot have any effect upon the mechanics of the analysis. What is the real status of affairs? This paper holds:

(1) Knowledge of the technology concerned is necessary in making the linguistic analysis. The English language is structured in such a way that sentences cannot be analyzed solely in terms of grammatical devices. Meaning sometimes plays a very important role. C.C. Fries used in his The Structure of English the sentence "Woggle ugged diggles" to show that the structural meaning of an English sentence can be well understood even if one knows nothing about the meanings of the constituent words. In fact, English sentences are not always so simply constructed. Examples in Section 2 of this paper aptly demonstrate the fact that, without an adequate knowledge of the technology concerned, it is sometimes next to impossible to ascertain the functions of certain parts of the sentence. One more example will suffice.

— Even at the absolute zero of temperature, energy levels are occupied by two electrons each, from the zero of kinetic energy to some value W.
Does "from the zero of kinetic energy to some value W" modify "energy levels" or "are occupied"?

A word group like "aluminum evaporation furnace" may mean "furnace for aluminum evaporation" or "evaporation furnace made of aluminum", depending upon the situation determined by technology. Coordinated elements in a sentence may also present difficulties, e.g.

— In fact, this indicates that it is not true that A is greater than B and, therefore, equation 11 is applicable. Does "and" connect "that A is greater than B" and "that equation 11 is applicable" or connect "that it is not true" and "that equation 11 is applicable"? The two possibilities lead to utterly different meanings.

To a layman, "wheel and axle" might be taken for two separate things. Furthermore, in "carbon dioxide or carbon monoxide", carbon dioxide and carbon monoxide refer to two things; while in "carbon dioxide or carbonic-acid gas", carbon dioxide and carbonic-acid gas are one and the same thing. How can a student make the distinction if he is totally ignorant of chemistry? Proceeding from this point, one can see that the following sentence has, to a layman, three possible ways of interpreting the function of the phrase "in the absence of an electric field":

— An atom or an ion in the absence of an electric field may have the center of gravity of its positive charges coincide with that of its negative charges.

(1) The phrase in question may modify "an atom" and "an ion" simultaneously.

(2) It may modify "an ion" alone.

(3) "an ion in the absence of an electric field" may mean the same thing as "an atom".

(2) Knowledge of the technology concerned cannot substitute for linguistic analysis. Since language is the conveyor of the technical contents, it is the linguistic structure that is decisive in determining the issue. Let's see again the sentence which has been cited elsewhere in this paper.

— This article is based upon reports on scientific matter prepared by different scientists.

Does "prepared by different scientists" refer to "reports" or "matter"? From a technical point of view, both may seem possible. But, as has been explained above, linguistic considerations present only the first possibility. Furthermore, in "Most cutting mechanisms have cutters marked as to size" phe phrase "marked as to size" is an adjective modifier equivalent to "which are marked as to size"; while in "Most cutting mechanisms have their cutters marked as to size" is the object complement, and the sentence means that cutting mechanisms assign marks to their cutters as to size. This disparity in meaning brought about by the presence or absence of a single word "their" is apparently a linguistic problem which can hardly be coped with from the technology approach.

* * *

NOTES

(1) In this paper, the fundamental parts of a sentence refer to the subject (S), the predicate verb (V), the predicative (P), the object (O), and the complement (C).

(2) The modifiers refer to the attributive modifier (A) and the adverbial modifier (Adv.)

(3) Primarily we need to consider only the nouns and the verbs (and sometimes the adjectives) in this connection, while skipping over the irrelevant word-classes.

(4) For a phrase or clause at the beginning of a sentence (Hence, there is no "preceding word or word group" to modify), it is generally a sentence modifier, which, again fortunately, has the same structural position as in Chinese.□

ESP AT TESOL '83

Reported by Deborah Marino

VIDEO IN ESP/EST: A PROJECT IN KUWAIT

R. Marshall Burgamy and Robert A. Underwood,
Presentors/Authors
(Nick Cate, Audio-Visual Specialist)

The authors are instructors at the Kuwait University English Language Unit (ELU). The videotape series titled, "Environmental Protection: Kuwait Looks at the Future", was developed for the ELU of both the Science and Engineering faculties. The ELU of Kuwait University has been in existence since 1973; the ESP and Engineering courses were initiated in 1975. Lectures in the Engineering college are given in English; however, most lecturers are non-native speakers of English.

The video-tapes are of Arab-speaking scientists from Egypt, Iraq, and Palestine. Video-tape materials from the B.B.C. were pre-viewed and it was felt that using native scientists would provide role models for the students. Scripts were written by the scientists with the authors editing the materials so that students could better handle the materials. The pre-Engineering students had had about eight years of English and were considered to be "reasonably fluent". In the ELU they receive 15 hours per week of English instruction.

Prior to the design of the 5 day lesson surrounding the first 15 minute tape, a needs analysis was done in the science faculty to determine the mode of note-taking used. (Subsequent video lessons are shorter.)

Students are given a reading the weekend prior to the video lesson. The reading was adapted from a scientific journal, an environmental textbook from the U.S. and the videoscript. Vocabulary items, especially from the video tape, were included.

On day one, the homework and the possibility of pollution in Kuwait were discussed. Day two is the first viewing of the tape followed by comprehension questions, teacher's notes with discourse markers and vocabulary lists with and without definitions. Day three is the second viewing followed by Environmental Rules and Major Components charts. Day four is in the language lab and the students hear the audio portion of the videotape only, preceded by a review of outlining. Students have control over the speed of delivery and number of times they hear the tape. Finally on day five, the students are evaluated with a cloze and vocabulary quiz.

In a post-viewing discussion following the TESOL presentation, the authors supported their rationale for the design of the video-tapes. Although there were errors in oral production made by the non-native science lecturers, basically these had been ignored. That the pre-Engineering students would have a lecture series later in the ELU was sufficient reason to produce video-tapes which might not be totally true to the speed of delivery and content of future lectures in the Science or Engineeringing faculties. Finally as was mentioned above, using Arab scientists who were discussing local-based materials, created high motivation for the students. Lessons surrounding the video-tapes were designed to increase the students' lecture note-taking skills, listening comprehension and skills in vocabulary acquistion.□

CREATING BUSINESS ENGLISH LESSONS FROM THE WALL STREET JOURNAL

Ann Scoville
American Language Institute, San Diego University

The information presented was from a course designed for a three-week summer program called Management Business English for businessmen of very diverse make-ups. Their MTAC scores ranged from 70-80 and in addition to the course on The Wall Street Journal, they took Business Writing, Oral Presentation (with role playing and video-taping and a course from a professor of business administration.

The Wall Street Journal course met a total of twelve times and included an outside speaker and field trips. Ms. Scoville listed the steps which she follows in planning a lesson with The Wall Street Journal (or any other business publication for that matter):

1. choose high interest articles with general appeal
2. select vocabulary to be pre-taught
3. introduce vocabulary in context
4. create a mental abstract for the students, summarize the article for the students
5. design vocabulary follow-up exercises
6. prepare comprehension questions encouraging the development of reading skills: inference, reading for main ideas, sequence, understanding rhetorical organization, recall of details
7. quiz to check comprehension and/or vocabulary (optional)

A sample introductory lesson on The Wall Street Journal included a list of the things which the instructor hoped for the students to learn, a section discussing the Index of The Wall Street Journal, and some further recommendations for activities to benefit students. These activities included following television and radio programs which are related to business: e.g. Washington Week in Review, McNeil-Leher Report, Wall Street Week, Business and Market News and Local Financial Reports. (Of course this is less feasible in an area which doesn't have cable, good TV reception or many choices in business related radio programming.)

Finally, the presenter gave some other suggestions for related exercises to be carried out in the classroom. These included:

1. role play business meetings based on an article from The Wall Street Journal
2. Role play reporting to a company vice-president or other higher level management person using content of The Wall Street Journal articles for supporting evidence, and
3. decision-making games based on data from The Wall Street Journal and other business publications.□

(ESP AT TESOL '83 Continued on Page 6)

✡ ✡ INDEX OF SPECIAL ISSUES OF THE ESP NEWSLETTER ✡ ✡

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YEAR I

MacKay, Ronald, ed. "ESP in Canada". EST Newsletter 8: November, 1977. .75(d) 1.00(f)

YEAR II

Hunt, Tim, ed. "Longman English Teaching Services", EST Newsletter 21: December, 1978. .50(d) .75(f)

Abrams, Sharon and Marjorie Morray, eds. "EST at INELEC". EST Newsletter 24: March, 1979. .50(d) .75(f)

YEAR III

Crandall, Jodi, ed. "Vocational English". ESP Newsletter 28: July 1979. .50(d) .75(f)

Robinson, Bill and Clive Bruton, eds. "Kuwait University". ESP Newsletter 29: August 1979. .50(d) .75(f)

Hanchey, Steve, ed. "ESP/EST Summer Institute". ESP Newsletter 31: October, 1979. .50(d) .75(f)

Johns, Ann, Patrick Carmichael and Judith McCarrick, eds. "EBE". ESP Newsletter 32: November, 1979. .50(d) .75(f)

Verts, Lita, ed. "ESP at Oregon State University". ESP Newsletter 35: February, 1980. .50(d) .75(f)

Hutchinson, Tom and Alan Waters, eds. "Technical English in England". ESP Newsletter 36: March 1980. .50(d) .75(f)

YEAR IV

Blackie, David, ed. "Considerations When Developing EST Materials". ESP Newsletter 47: February, 1981. .50(d) .75(f)

YEAR V

Michaels, Kathryn, ed. "Teacher Exchanges in ESP Programs". ESP Newsletter 50: May, 1981. .50(d) .75(f)

Scholz, George, ed. "ESP in China, Part I". ESP Newsletter 51: June, 1981. .75(d) 1.00(f)

Scholz, George, ed. "ESP in China, Part II". ESP Newsletter 52: July, 1981. .75(d) 1.00(f)

Wyatt, David, ed. "Computer Assisted Instruction". ESP Newsletter 58/59: January/February, 1982. .75(d) 1.00(f)

YEAR VI

Blanton, Mackie J.V., ed. "Toward a Sociorhetorical Communicative Competence in ESP: Paradigms for Pedagogy, Part I". ESP Newsletter 63: June, 1982. .50(d) .75(f)

Blanton, Mackie J.V., ed. "Toward a Sociorhetorical Communicative Competence in ESP: Paradigms for Pedagogy, Part II". ESP Newsletter 64: July 1982. .50(d) .75(f)

Michaels, Kathryn, ed. "A Tribute to J.R. Ewer". ESP Newsletter 65: August, 1982. (Includes a complete list of Ewer's published and unpublished works.) .50(d) .75(f)

Bhatia, Vijay and John Swales, eds. "Legal English Part I: A Theoretical Framework". ESP Newsletter 67: October, 1982. .75(d) 1.00(f)

Bhatia, Vijay and John Swales, eds. "Legal English Part II: Pedagogical Implications". ESP Newseltter 68: November, 1982. .75(d) 1.00(f)

☆ ☆ EST CLEARINGHOUSE UPDATE ☆ ☆

I. ESP AS A DISCIPLINE

BIBLIOGRAPHY

Elliman, Jonathan. "A Model for Coursebook Evaluation" .50(d) .75(f)

Harding-Esch, Edith, ed. Conseil de la Cooperation Culturelle. Project Langues Vivantes. "Apprentissage en langue de Specialità. Proposition de Stages de Formation et Bibliographie" .50(d) .75(f)

International Center for Research on Bilingualism, Università Laval, Quebec, Canada. "Bibliography of Publications". October, 1982 1.00(d) 1.30(f)

Robinett, Betty Wallace. "Bibliography: English for Science and Technology" .85(d) 1.25(f)

NEEDS ANALYSIS

Coleman, Hywel. "English in Hasanuddin University. An Analysis of Needs" 10.00(d) 15.00(f)

"English for Special Purposes". ESL Working Papers, No. 2, Summer 1982. University of Minnesota 6.00(d) 9.00(f)

LINGUISTIC SUBTOPICS

Semantics

Robinett, Betty Wallace. "Delineation of Linguistic Features of Scientific and Technical English as a Basis for the Analysis of PLATO Computer--Assisted Experimental Mini-Units in Reading Comprehension for Non-Native Speakers." University of Minnestoa. 1980 1.50(d) 1.75(f)

Robinett, Betty Wallace and Deidre Bird Kramer. "Word Frequency List: English for Science and Technology" University of Minnesota, 1979 .80(d) 1.20(f)

Structure

Xueping, L. "The Understanding of EST Literature as Visualized by a Chinese Scholar .75(d) 1.00(f)

METHODOLIGAL CONSIDERATIONS

Harding-Esch, Edith, ed. Council of Europe Education and Culture. Project Langues Vivantes. "Propositions Methodologiques Pour un Apprentissage en Langue de Specialitè" 1.50(d) 1.75(f)

II. ESP SUBFIELDS

SCIENCE AND TECHNOLOGY

Sims, Diana Mae, "Technical English for ESL Students" .40(d) .60(f)

VOCATIONAL ENGLISH

Strukely, Inka Mikue. "Problems of Teaching of Languages in Vocational Schools". M.A. Thesis. University of Texas at Austin, 1973 6.00(d) 9.00(f)

MEDICAL ENGLISH

Gray-Richards, Barbara and Elizabeth Kirley. "English for the Health Sciences". Special Projects Report: Vancouver Community College 2.00(d) 2.50(f)

III. ESP AS AN ORGANIZATIONAL SYSTEM

PROGRAM DESIGN

Chaplen, E. Frank. "Advantages and Disadvantages of the Team Approach to Developing and Teaching an ESP Programme." Kuwait University, Faculty of Medicine .85(d) 1.25(f)

Crocker, Anthony. "Skill and Information in University Service English Courses: Experience at the University of Jordan Language Centre" .85(d) 1.25(f)

Frelick, Alcy and Margaret van Naerssen. "Professional Cultural Orientation in ESP" .50(d) .75(f)

SYLLABUS DESIGN

van Naerssen, Margaret. "Science Conference Poster Presentations in an ESP Program" .50(d) .75(f)

COMPUTERS AT TESOL

Deborah Healey

CAI is dead, firmly laid to rest by Frank Smith and others who have long believed that a computer doesn't teach anything. In its place we have CALL—Computer Assisted Language Learning (aha! a name change! but will it make the $2000 workbook passe?)

There were several sessions at the TESOL Convention in Toronto on writing CALL "workbook-style" programs, some for beginning programmers, some for the more advanced. There were also sessions on "authoring" software—software that helps non-programmers write programs. Most of the authoring material currently available helps teachers produce objective tests/workbook exercises—true/false, multiple choice, fill in—where there is only one correct answer. For those who would rather buy material than make their own, ALA/Regents had a display of their very sophisticated workbook-style software. Teachers had an opportunity to see the graphics, encouraging (or nasty) error messages and the immediate feedback that have become hallmarks of CALL.

The most exciting thing about CALL now, however, is not the availability of programs that say, "Good job, Pedro", nor even the color graphics. There was a strong sense among those who are now working with computers that what has been done up to now is just the beginning. As more non-computer scientists write programs, as more kinds of authoring software become available, as computers drop in price, we will see far greater variety in the types of programs being produced. A recurrent question has been, "Why put as central to instruction methods with a computer that were relegated to at-best occasional use in pre-computer classrooms?" Just because objective-test, workbook-style programs are easier to write does not make them pedegogically sound.

In his plenary address on microcomputers in education, Frank Smith emphasized the potential misuse of computers for "programmed instruction"—rigid styles of language teaching that presuppose a strict order in language learning. This type of teaching is unlikely to be a problem in ESP, however, where curricula are continually modified to fit different groups of students. Far more important to ESP are the newer programs being written for CALL—ones that put great importance on creativity and flexibility in computer use.

While I did not see any software specifically for ESP at the TESOL Convention, the ideas that are being generated about use of the computer fit well with ESP. There were people talking about using database programs to generate vocabulary exercises, word-processing programs to facilitate in-class writing and editing, and programs to help students work on specific reading skills. As more ESL/EFL/ESP people get involved with writing programs for computers, more creative, flexible software will become available, since few people involved with ESL or ESP are happy using only commercially available material.

TESOL members interested in CALL are now trying to set up a Special Interest Group for CALL. There should be further information coming out in future issues of the TESOL Newsletter, if there are enough people interested in working together on CALL.

One of the problems with CALL, especially in the current era of budget cuts, has been its expense. At the TESOL Convention, however, there were displays of software written for the Sinclair ZX-81, one of the cheapest computers on the market. A complete Sinclair system, including 16K of memory, a video display/TV, and a tape recorder/ player for data storage, could be purchased for as little as $250 in the US ($100 for the 16K Sinclair, $100 for a TV/monitor, and $50 for a tape recorder/player). While this system is, obviously, not as flexible as an Apple II system—it would be difficult to do much word-processing on the Sinclair, it is eminently affordable. The programs that were shown at TESOL for the Sinclair are mostly workbook-style, but there were some interesting exceptions, including a cloze where every word was blanked out (or any number of words up to that point), a slot-machine format where quickness of recognition counted, and simulation games where the computer kept track of what had happened so far and the score.

In sum, what people involved with CALL were saying at TESOL was that the field was wide open now—there is a lot of experimenting going on, a lot of learning, both on the teachers' parts and on the students'. The continuing questioning of methods can only be to the good; the expanding number of those questioners writing programs is to the better. Computers can do more than provide immediate feedback to answers on objective tests, and it is up to those involved in CALL to find new and better ways to use the tremendous capability of the machines at our disposal.

For ideas and information:

David Wyatt
Executive Offices
American Language Academy
Suite 200
11426 Rockville Pike
Rockville, MD 20852
USA

WIDA Software (ask for a catalog)
2, Nicholas Gardens
London W5
ENGLAND

ALA/Regents
2 Park Avenue
New York, NY 10016
USA
(212) 889-2780

PUBLICATIONS RECEIVED FOR REVIEW

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Comfort, Jeremy; Steve Heck and Allan Savage. Basic Technical English. 1982. London: Oxford University Press. 90 pp.

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de Garcia, Karen Batchelor and Barbara Henrici Nixon. Discovering English. 1982. Rowley, Massachusetts: Newbury House Publishers, Inc. 162 pp.

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Young, Lynne and Brigid Fitzgerald. Listening and Learning, Modules II, III, IV, V. 1982. Rowley, Massachusetts: Newbury House Publishers, Inc.

ANNOUNCEMENTS

TESOL WORKSHOP

The Intensive English Inst[illegible], Ball State University, presents a TESOL Workshop entitled LANGUAGE TEACHING METHODOLOGY. The Workshop will be held June 13-17, from 9-5 daily.

The Workshop will include coursework in The Silent Way, Community Language Learning, Using the Computer in Teaching Languages, Total Physical Response, and other effective teaching techniques.

Instructors are: Margaret Blencowe, Phyllis Liston, and Herbert Stahlke.

For more information, contact:
School of Continuing Education
Ball State University
Muncie, Indiana 47306

TEACH IN THAILAND OR KOREA THIS SUMMER

Applications are now being accepted for the ITM-AMERICAN GATEWAY PROGRAM summer English teams in either Thailand or Korea. Applicants for either team should have or be pursuing a graduate degree in ESL/EFL, English, or Linguistics.

Thailand assignments are from June 10 to August 2, 1983; Korean assignments from June 27 to August 21, 1983. Teachers pay for their own airfare and a ten day field trip at the end. All other expenses are paid.

Send for further information, contact: Dr. Daniel Edward Behmer, Director; ITM-American Gateway Program; P.O. Box 02340; Detroit, MI 48202; (313) 872-1460.

(ANNOUNCEMENTS Continued on Page 8)

* * * **ANNOUNCEMENTS** (Continued) * * *

CONFERENCE

A one-day conference will be held at Florida State University on the topic "Adult Language Learning and ESP". The date of the conference is June 25, 1983.

For further information, contact: Dr. Rick Jenks; CIES-FSU; 918 W. Park Avenue; Tallahassee, FL 32606

* * 15th AIMAV COLLOQUIUM REGISTRATION * *

The closing date for registration for the 15th AIMAV Colloquium will be June 1, 1983. The registration fees have been fixed as follows:

Dfl. 300	main program (before May 1, 1983)
Dfl. 350	main program (after May 1, 1983)
Dfl. 80	accompanying persons program on Wednesday
Dfl. 45	accompanying persons program on Thursday
Dfl. 30	accompanying persons program on Friday
Dfl. 75	social program on Thursday evening

Checks for registration should be made out to "FONDS W.B.A.": New Approaches. All payments must be in Dutch guilders to insure that they are free of transfer charges. Dutch banks are at present charging Dfl. 7,50 for each international transfer.

The aim of the colloquium, supported by UNESCO and the European Cultural Foundation, is to evaluate new trends in foreign language didactics, i.e. educational systems rather than isolated teaching techniques.

The international colloquium will be held at the University of Nijmegen, The Netherlands, September 6-9, 1983. It will be jointly organized by the Department of Applied Linguistics of the University of Nijmegen, The Netherlands, and the AIMAV, Brussels, Belgium.

For further information about hotel accommodations and program, contact:

Secretariat, Department of Applied Linguistics University of Nijmegen
c/o Mr. H. Bours
P.O. Box 9103
6500 HD Nijmegen, THE NETHERLANDS
Telephone: 080-51 22 07; (from abroad: 3180512207)

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CONFERENCE REPORTS

CONFERENCE ON FOREIGN LANGUAGES FOR BUSINESS

Marianne McDougal
English Language Institute
Oregon State University

On April 7-9 the "Conference on Foreign Languages for Business" was held at Ypsilanti, Michigan. It was sponsored by Eastern Michigan University Department of Foreign Languages and Bilingual Studies in cooperation with the EMU Division of Continuing Education, Conferences and Professional Development Programs. Although previous conferences of this type had been held, they dealt with only one language at a time. The 1983 conference included French, German, Spanish, and English as they relate to business, this being the first year for English. I was lucky enough to be able to attend this year's conference, both as a presenter and participant.

In the two and a half days of the conference, we were offered a full, rich program. There were over 75 presentations and numerous keynote addresses. The sessions were well organized with excellent facilities.

Before going to the conference, I had thought the four languages would share numerous common concerns. However, I discovered that many French, Spanish, and German Business programs are just getting started in the U.S. and some of them are having trouble getting started at all. The reasons vary but some of them include the following: the the unwillingness of American students to study foreign languages, the unwillingness of American international businesses to encourage and require their employees to know a second language, and, in some cases, the unwillingness of the foreign language teacher to deal in commercial courses. As one German professor from Massachusetts said, "Some of my colleagues refuse to teach anything that doesn't involve 'high culture.' " Fortunately, most of these areas of resistance are rapidly breaking down as American business people realize they have to do whatever is necessary to remain competitive on a global scale. This is not to say German, French, and Spanish are totally undeveloped in the area of business. Many departments have established outstanding programs in this area, as evidenced by some fine presentations. Eastern Michigan University, in particular, has developed excellent business-related programs in Spanish, German, and French. However, in talking to Geoffrey Voght, Conference Chairman, he readily agreed that a majority of the 300 participants were there to learn how they might begin to develop and incorporate a business component into their language program.

All of this made me realize how fortunate we Business English people are. First, we have eager, willing students--second langauge learners who will be working in an American business setting, foreign students who plan to major in one of the business fields at a U.S. college or university, and special program students sponsored by foreign governments or international companies. We also have financial support from the foreign sponsors of these special programs. And third, I feel that most ESL teachers are quite willing to try to teach Business English given the right conditions. ESL has always been approached from a pragmatic aspect, so it's not out of character to teach something as practical as Commerical or Business English.

It seems we Business English people would have much to offer at a conference of this type, yet there was very little English representation. Only three of the 75+ presentations dealt with Business English and I encountered just a handful of participants whose nametags indicated a Business English affiliation.

I hope at future conferences we can represent Business English in full force for two reasons: 1) We have a tremendous amount of knowledge and experience to share with our colleagues in foreign languages--needs analysis, program design, curriculum development, materials development, testing, methodology, etc.; and 2) As Spanish, French, and German continue to develop and expand their business programs, they will be able to share their valuable experiences with us.

To finish up, there are three aspects you might be interested in:

1) All conference presentations are available on cassette at cost. Contact Dr. Geoffrey M. Voght, Associate Professor of Spanish, Department of Foreign Languages and Bilingual Studies, Eastern Michigan University, Ypsilanti, MI 48197. Telephone: (313) 487-0130/0178.
2) There is some talk of estabishing an "Applied Languages Association to Promote Language Studies for Business and the Professions." Contact Luis F. Fernandez Sosa, Department of Foreign Languages, Western Illinois University (address unavailable).
3) A new journal has just come out--The Journal of Language for International Business. It is devoted to the teaching and study for foreign languages and English as they relate to international business. Contact Andres Chang, The Journal of Language for International Business, American Graduate School of International Management, Thunderbird Campus, Glendale, AZ 85306.

WORKSHOP AT CENTRO-CULTURAL PARAGUAYO-NORTEAMERICANO

Marjorie Morray

Instructors at the Centro Cultural recently completed a workshop on the nature of ESP, especially EST, and in particular English as used in Civil Engineering and Architecture. Much of the workshop drew on Ron MacKay's article on technical reading and Richard Yorkey's chapters on development of reading skills.

The workshop began with a lecture/demonstration on "Current Trends in Language Testing" based on the experiences of Robinett, Stevick and Morray. There followed a lecture on the nature, objectives, emphases, methods and materials of ESP, with particular emphasis on the physical sciences, engineering and architecture. Needs analysis was examined in particular depth, with Peter Strevens and Brendan Carroll's books on English--teaching and testing offering valuable guidelines and information. As one aspect of needs analysis, participants designed IRI's to be administered for purposes of diagnosis before the opening of the pilot reading course for students of beginning English-reading proficiency which is to begin in the coming month. Those students testing higher are to be incorporated into the course in suceeding terms, intermediates in winter and advanced in spring.

Discussion also focused on designing lesson plans to improve the students' ability to read materials in civil engineering and architecture with comprehension and effeciency. Instructors spent two days designing lesson plans.

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The Language Studies Unit (Modern Languages Department), University of Aston in Brimingham, England, announces a new journal:

READING IN A FOREIGN LANGUAGE

Ray Williams and Alexander Urquahrt, Co-editors

READING IN A FOREIGN LANGUAGE is published twice a year - in March and September. The journal publishes articles concerning both the practice and theory of learning to read and teaching reading in any foreign or second language. Conference reports and book reviews will also be published. The language of the journal will be English, but lexical citations of languages other than English are acceptable.

The over-riding objective of the journal is to make a positive and practical contribution to improvements in standards of reading in a foreign language.

READING IN A FOREIGN LANGUAGE is published on a non-profit making basis: £6.00 p.a. UK and Europe (surface mail) and £9.00 p.a. outside Europe (airmail). There is no additional charge for institutional subscribers.

Subscriptions, manuscripts and advertising enquiries will be welcomed by:

Ray Williams and Alexander Urquhart
Co-editors: Reading in a Foreign Language
Language Studies Unit (Modern Languages Department)
University of Aston in Birmingham
Birmingham B4 7ET, ENGLAND

RESOURCES (Continued)

Two new publications focus on language testing, evaluation and research:

Language Testing Newsletter
A. Hughes and D. Porter
Department of Linguistic Science
University, Whiteknights
Reading RG6 2AA, ENGLAND

Language Testing Notes
R.L. Jones
Humanities Research Center
120 B-34
Brigham Young University
Provo, Utah 84602, USA

* * *

APPLIED LINGUISTICS IN LATIN AMERICA

A journal entitled "Estudios de Linguistica Aplicada" is devoted to the theoretical and practical aspects of teaching and learning second and foreign languages, courses in reading for specific purposes, sociolinguistics, pragmatics, psycholinguistics, contrastive linguistics, and the theory of language. Its objective is to concentrate on those topics and problems of general interest which are particularly relevant to Latin America. It is directed to researchers in the field of applied linguistics, foreign language teaching centers and language teachers in general. For further information write to the Editorial Board of the journal:

Centro de Enseñanza de Lenguas Extranjeras
Universidad Nacional Autonoma de Mexico
Ciudad Universitaria
Mexico 20, D.J., MEXICO

* * *

PRAGMATICS INTERNATIONAL, INC.

Pragmatics International, Inc. has available numerous reprintings of original Lao and Hmong materials from Indochina. The materials deal with various aspects of Lao and Hmong language as well as with cultural traditions. For more information on titles and prices, contact:

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(517) 782-3666

* * *

VIETNAMESE BOOKSTORE

Vietnamese Bookstore publishes and distributes various dictionaries, and grammar books for Vietnamese speakers. The bookstore is a subsidiary of Xuan Thu Publishing Company. For a complete catalog write:

Vietnamese Book Store
P.O. Box 66,
Lancaster, PA. 17604 USA
(717) 299-0613

RELC, the Regional Language Center for the Southeastern Asian Ministers of Education Organization (SEAMEO) continues to broaden its substantial offerings of academic and research publications. Cited below are three publications which have particular relevance to ESP professionals.

Copies and pricing information are available from the following address:

The Publications Office
SEAMEO Regional Language Centre
30 Orange Grove Road
Singapore 1025
Republic of Singapore

RELC Research in Language Education

The monumental 223 page special publication is a guide to the wealth of materials and information available at RELC as a result of its specialized advanced training and research programs over a very productive 13 1/2 year period. It should serve as a useful reference for educational planners, administrators, researchers, teachers and students as well as for individuals and organizations involved in language planning and language education.

Teaching English for Science and Technology

Jack C. Richards
Editor

This volume contains a selection of the papers presented at the Regional Seminar on the Teaching and Learning of English for Scientific and Technological Purposes in Southeast Asia held at RELC in April 1975. A number of important papers by key shcolars in the field are published here for the first time. The thirteen papers included in the anthology cover the five major areas of interest that were discussed during the Seminar: Advances in the theoretical analysis of English for special purposes, Approaches to the study of scientific lexicon, Development of materials for English for science and technology, Planning EST programmes in the university, and Teacher training.

Curriculum Development and Syllabus Design

Geoffrey H. Wilson
Editor

Compiled in this volume are selections from the twenty papers presented at the Regional Seminar on Curriculum Development and Syllabus Design for English Teaching with Some Focus on the Needs in Science, Technology and Commerce held at RELC in July 1975. Contributions come from scholars in Indonesia, Malaysia, Philippines, Thailand and Singapore as well as from American, British and New Zealand authors.

☆ ☆ MALAYSIAN ESP STUDIES AT THE REGIONAL LANGUAGE CENTRE, SINGAPORE ☆ ☆

Ho-Peng Lim
National University of Malaysia

The Regional Language Centre (RELC) located in Singapore, is an educational project of the Southeast Asian Ministers of Education Organization (SEAMEO). Founded in 1968, the general objective of RELC is to assist SEAMEO member countries to improve the teaching of English and other languages and to that end, to conduct high quality training courses and to undertake research and publications and other kindred activities related to the needs and problems of the region.

During the period 1968-1981 a total of 780 research projects were completed at RELC by key personnel in language education from SEAMEO member countries. Sixty out of the 780 projects dealt with ESP.

Although the past decade has shown a growing need for research and materials in the area of language for scientific, technical, commercial and other special purposes, the emergence of ESP as a major field of second language teaching endeavor has not made any significant impact on language educationists in Malaysia. A survey of the 60 ESP projects done at RELC in Singapore reveals that up to the end of 1981 only 6 projects have been completed specifically in the area of ESP.

Listed below are brief descriptions of the 6 ESP projects. Each entry provides the author's name, project title, year of completion, and the number of pages.

CHEONG, MARLENE M.L. — A basis for an ESP approach to the teaching of English language to first year students at the School of Architecture, Planning and Surveying, Institute of Technology, MARA, Malaysia. 1976. 107p.

The first part of this project paper reviews the aim of education and the role of English in Southeast Asia in general and Malaysia in particular. The role of the Institute of Technology, MARA (ITM) is reviewed in the light of changing national needs. The second part examines the aims and objectives of the School of Architecture, Planning and Surveying, ITM, with a view to proposing an English for Specific Purposes (ESP) approach to fill the specific needs of students. The final part demonstrates how, in the absence of relevant published materials for the teaching of an ESP program to first year architecture students, effective authentic instructional materials can be prepared by careful tapping of resources outside set language texts.

MOHAMMAD ZULKIFLI RAZALLI. — A suggested syllabus for the teaching of remedial English for education instructors in the Malaysian Armed Forces. 1976. 32p.

This ESP syllabus for education instructors of the Malaysian Armed Forces at the Malaysian Military Training School covers the four skills of listening, speaking, reading and writing. The syllabus follows the Communicational Syllabus of the upper secondary schools in Malaysia. As the majority of the education instructors are from Malay-medium schools, the immediate aim is to improve the all-round ability of the instructors in the English language to enable them to carry out their teaching duties more effectively. Besides an outline of the suggested syllabus, modules and sample lessons are included to help the teacher implement this syllabus successfully. In addition, a statement of the proportion of time to be alloted to cover each skill is recommended.

LOKE, MAY LING NEE TAN. — Identifying the communication needs of Chinese-educated senior executives in a private organization in West Malaysia. 1980. 70p.

This study presents a working module for an investigation into the communication needs of 31 Chinese-educated professionals, who represent the top echelon of executives in a private international organization with 33 branch compa[illegible]n West Malaysia. The data were collected by means of a specially constructed bilingual questionnai[illegible]h is included in the project report. The results complement both the researcher's working assumptions and indirect information gleaned from informal fieldwork. Some tentative suggetions for the analysis of data and the construction of a profile of language needs are given, together with general recommendations for further work in the area.

SHANMUGAM, V. A study of some of the structural features of English used in science textbooks for Form One in Malaysian schools. 1970. 46p.

This project provides information on English in relation to science materials relevant to students in Form One of English-medium secondary schools in Malaysia. The study is confined to structural features of the language and is based on the language used in four science textbooks currently in use.

BABA AHMAD BIN HAMID DON. A programme of instructional materials to develop the proficiency in English of participants attending courses at the SEAMEO Regional Centre for Education in Science and Mathematics (RECSAM). 1971. 282 p.

The RECSAM participants need to understand spoken English early, to speak English on everyday subjects as well as on their special subjects, and to take an active part in the training sessions and discussions by expressing their thoughts and ideas. The author's programme of instructional materials is geared primarily to developing the participants' listening and speaking skills. It begins with fundamental English and leads progressively to structures and lexical items in science and mathematics that the participants are likely to meet at RECSAM. The four courses of this programme cover social English, the language of quantity, the language of quality, and listening comprehension. Each course is made up of units of instruction with drills and exercises aimed at developing the learner's listening and speaking skills. Taped materials to accompany the programme are available.

SHA'ARI ABDULLAH; G. KRISHNAN; CHAN SIEW NGO; DAVID GUNARATNAM and TAN AH ENG. A proposed syllabus design for English for Special Purposes with sample materials for teacher training colleges in Malaysia with emphasis on reading. 1975. 75p.

Students in technical teacher training colleges have considerable difficulty in reading technical texts in English. A syllabus for English for Special Purposes to help these students read and better understand the language of technical and scientific texts is proposed. Skeletal in nature and consisting of only 113 lexical items and nine major grammatical categories, it is based on the analysis of prose passages of about 30,000 words taken from technical and scientific texts currently in use in these colleges. Six passages of a technical and scientific nature were selected to illustrate how these frequently occurring lexical and grammatical features could be taught at this level.

ABSTRACTS

SCIENCE CONFERENCE POSTER PRESENTATIONS IN AN ESP PROGRAM

Margaret van Naerssen

In recent years at professional conferences poster presentations have become a popular technique for communicating ideas, especially research work. Sanderson (1982) has described in great detail how posters are professionally made and used in biomedical meetings. In this paper is a description of how such posters have been adapted to an intensive ESP program in Beijing, Peoples' Republic of China, to simulate conference conditions; to provide coordination between the writing and oral communication courses at the advanced level to provide informal, unplanned discussion concerning the students' own research interests; and to provide students (who might be attending professional conferences where English is one of the conference languages) with a technique for comunication ideas that is less threatening than a formal conference presentation in front of many people. [Editors note: Full text is available from ESP Clearinghouse].

LANGUAGE ASSESSMENTS MANUAL

Patricia Menges and Nancy Siefer

This handbook is designed to aid teachers and administrators in planning and carrying out assessment of the language skills of Limited English Proficiency (LEP) students in vocational education programs. Language assessment is approached from general perspectives and within the framework of a core situation of Hispanic adults in secretarial and automotive training at the community college level. The topics include: issues of language assessment of LEP students in vocational education; steps in planning language assessment; types of ESL tests; assessment of English, native language, and vocational language skills of LEP students in secretarial and automotive training.

For more information contact: Nancy Siefer, Director; Limited English Speaking Vocational Program; Mesa Community College Program; 1833 W. Southern Avenue; Mesa, AZ 85202
(602) 833-1261

ENGLISH FOR STUDY PURPOSES PART 1

Jennifer Smith and Bernard Coffey. London:
The Macmillian Press Ltd., 1982. pp. 113.

Reviewed by Dr. R.K. Singh
Lecturer in English
Indian School of Mines
Dhanbad 826004 INDIA

English for Study Purposes aims at preparing Higher intermediate/Very advancec level students "for studies in English in many scientific and science-related fields without restriction to one specialised area." Developed by the Regional Centre of the Southeast Asian Ministers of Education Organisation, Singapore, this course of study is claimed to help the specialist English learners acquire practical skills of "data collection, note-making, report writing, and the comprehension and interpretation not only of written texts, but also of charts, graphs and diagrams." (Preface).

The authors are aware of the communicative purposes for which the language is being taught or learnt; what and how students can communicate through a combination of grammar and vocabulary; the linguistic technique required to narrate and inform; that is, how to express comparison and contrast, similarity and difference; how to express analysis, interpretation, assessment, synthesis; how to define, describe, explain or evaluate; how to make recommendation and draw conclusion; how to formulate hypotheses and use persuasive arguments; how to express certainty, uncertainty, probability; in short, the specific linguistic structures involved in writing in a scientific context. Smith and Coffey offer the general academic language whose structure, general lexis, cohesive devices etc., are thought to be common to various specialist subject areas, framing appropriate exercises to practice the basics of the skills so that they may later be applied by the student to his own specialism.

This study skills course consists of ten basic units, plus Introductory units A and B, and is in two parts, Part 1 and Part 2. Part 1 consists of five units with reading passages on various topics related to "Energy" ("Energy for Life", "Energy for Power", "Climatic Change and Man's Thirst for Energy", "Energy for Transport" and "Global Prospects for Energy"), which are expected to interest the general audience. Each unit is divided into six sections: preparation, main reading passage, comprehension, development, further reading, and written practice. The organisation of the unit is a blend of reading and writing (there is attention also to some listening skills), suiting the academic study needs of the southeast Asian students at the tertiary level.

Though the study skills that are specific to ESP, like understanding words in context, skimming and scanning connecting ideas, organising a text, ordering information, interpreting a diagram, note-making and summarising in note-form, distinguishing fact from opinion, paragraph writing, report writing etc. are practised in Part 1, the non-linguistic skills necessary for using library facilities, i.e. finding books and references, using dictionaries, indexes, and bibliographies etc., are excluded. The book also omits the skills necessary for participating in seminars, like giving short talks, stating a point of view, the methods used to add something to a discussion, to return to a previous point, or to disagree with what the last speaker has said. The reading material, adapted and extracted from varied sources, like The Economist, Nature, Insight, The Geographical Magazine, The WAES Report, The Encyclopedia of Transport etc., may appear appropriate in that the learner is expected to write and understand pieces of extended discourse, but do Smith and Coffey presume that the seminar strategies need not feature in the learning programme for the students of the international region represented by SEAMEO? It appears to me that the inclusion of seminar strategies in the design of English for Study Purposes would have socialised its material.

It's an instance of further omission that the authors have excluded from note-taking exercises the use of signpost words in symbol forms, and abbreviations. They also fail to stress expression of coherent classification. Furthermore, the book leaves out an important functional area of ESP practice, that is, the ability to understand examination questions and write appropriate answers.

I am afraid English for Study Purposes Part 1, which has an attractive flexicover and is replete with black and white photographs, charts, graphs, tables and designs, is not an evidence of ESP in perspective. Yet it may be recommended as a useful book for students in technical/engineering institutions where English is taught as a service subject for one or two years/semesters. The reading material is interesting and so is the innovative organisation of the practice exercise.

INTERMEDIATE COMPOSITION PRACTICE BOOK 2

Linda Lonon Blanton. Rowley, Massachusetts:
Newbury House Publishers, Inc., 1983.
pp. xviii + 186. US$6.95

Reviewed by Pat McClenahan
English Language Institute
Oregon State University

Description:

This book is the most advanced in a four-part writing program. It is one of two books designed for the "intermediate level ESL learner." It is divided into nine units, each of which is organized around a grammatical, organizational, and rhetorical focus. Emphasis is on expository discourse. Modes are treated functionally.

Target Market:

The books is designed to be used in the classroom by "mid-to-high intermediate adult ESL learners who plan to use English for academic and professional purposes."

The author assumes that the learner has completed ICP Book I, or has mastered the skills presented in that text, since the books are cyclic, with lessons intended to reinforce previous lessons in a spiralling fashion.

This workbook in the series is intended to prepare the students for advanced-level writing by providing a transition between simple prose style and writing of a more complex and sophisticated nature, ideally placing them at a pre-native writer competency. (The author suggests that this represents an approximate 450 TOEFL level at completion.)

Format/Organization:

Units are aligned with a four-part classification of discourse in the following manner:

MODES	UNITS
1. Narration	Unit 2, Unit 5
2. Description	Unit 1, Unit 8
3. Argumentation	Unit 7
4. Exposition	Unit 3, Unit 4, Unit 6, Unit 9

Each of the nine units consists of a text, a text analysis, five exercises based on relevant grammatical, organizational, and rhetorical foci, and one or more student compositions.

Each unit also includes a vocabulary study of words used in the unit text. Exercises are workbook-like. While some essential grammatical questions are dealt with, the author assumes the use of a supplementary grammar text. Each unit has three problems for student writing which require application of the elements studied in the unit. Depending on availability of time and student needs, one or more of these topics may be assigned.

There are, in addition, three practice composition exams. There is no teacher's manual. The book is liberally sprinkled with diagrams and illustrations which get the point across but which are not overwhelming. One recurring diagram elicits a pre-writing topic outline in each unit.

Projection of Scheduling:

Based on a five-day-a-week schedule of meetings, each unit would provide four to five hours of classwork plus homework for one week, with the final composition being written in class on Friday. The book could be completed in nine weeks.

Methodological Approach:

The book uses a functional approach, and includes analysis of features, practice of essential elements, and application of target linguistic and rhetorical foci in the composition.

Methods of Presentation:

Units are uniformly organized in the following manner:

1. Initial composition with illustrative diagram.
2. Diagram illustrating writer's development.
3. Notes on the initial composition, with illustrations and examples.
4. Essential words and phrases.
5. Workbook-style exercises with illustrations giving clarification or information.
6. Step-by-step instructions for the students' composition.
7. Three composition topics.

Summary:

Physical description and spatial order are not as essential to scholastic and professional writing as other types of writing are and should not be accorded time at this level. Topics are not highly sophisticated. While the exercises are relevant to both the illustrative composition and to the assigned compositions, they are not extremely rigorous; it might be difficult to keep more capable students interested and challenged. Pre-writing organizational techniques required in each unit are a very valuable aspect of this book. In using ICP Book I this reviewer found that the exercises did motivate students to apply target skills to their own compositions. The book would seem to lend itself well to adoption of a supplimentary grammar text for clarification and further practice of problem areas.

SUMMER INSTITUTE

ENGLISH FOR SPECIFIC PURPOSES IN THE ARAB WORLD

August 7-20, 1983

Language Studies Unit
University of Aston in Birmingham

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- ESP materials and methodologies in and for the Arab World
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- Relevance of the new Computer and Video technologies
- Research in ESP and Applied Linguistics in and for the Arab world
- Roles of Service English in Arab World educational and training contexts
- Staff recruitment, training and development
- Study habits and learning contexts in the Arab world

Enquiries to and registration forms from:
John Swales
Language Studies Unit
University of Aston in Birmingham
Birmingham B4 7ET, ENGLAND
(021-359-3611, Ext.4238/5918)

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June/July 1983

English For Specific Purposes

KATHRYN MICHAELS, EDITOR

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VALERIE PALMER, PRODUCTION

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ESP IN BRAZIL

FROM THE EDITOR:

For some time now, the ESP NEWSLETTER has been pointing up the need for a solid research base upon which to evaluate and build ESP. We were not and are not alone in this expression. In 1981, Jack Ewer ranked research as the most important of the "Nine Problem Areas in ESP". (See issue #54).

Slowly, the need for research into various aspects of ESP is being accomplished. One of the most important is the Brazilian national ESP project. Begun at the end of 1980, and coordinated by Maria Antonietta Alba Celani, the Projeto Ensino de Inglés Instrumental em Universidades Brasileiras is impressive, both in scope and design. Twenty one Brazilian universities are currently involved in joint, cooperative national research projects.

The latest accomplishment of the project is a very thorough and impressive report documenting the need and usefulness of teaching ESP in the Brazilian federal universities. The report, while referring mainly to the state of Brazilian ESP early in the project's development, is significant for the corrobation it provides all of us, including the Brazilian project investigators, of several presuppositions about the need for a special purposes perspective on language instruction.

The following letter by John Holmes, announces another important effort by the Brazilian ESP project, the establishment of a research center. This center is a needed and logical advance. It is one which, in combination with two other activities already established by the project, i.e., the Working Papers series and ESPecialist journal, does much to realize the need for research in ESP. The research center is an undertaking worthy of support by all of us involved with languages for specific purposes.

* * * * * * * *

Dear Colleagues:

One topic which has begun to concern teachers working with the Brazilian National ESP project is the setting up of resource centres at a national and also local level. The project, centred mainly in Brazilian Federal Universities, has been moving from a phase of mainly teacher-training (the working out of common goals and a methodology) and is now concerned with the preparation of materials and their exchange between university ESP teams. This means the setting up of a resource centre, which will be a place where teaching materials can be stored and retrieved.

At present we are setting up a research programme into the elaboration of a classification system. We have to examine such topics as a text typology, exercise typology and the preparation of teachers' notes. We not only have to work out systems for storage and retrieval, but also ways of requesting material. All too often we get teachers who ask for "materials for 3rd year students of journalism", expecting that we have a whole set of materials which exactly fit that course! In reality we may have texts and exercises or entire course units filed away under different headings, unuseable, alas! - when faced with this kind of request.

To come to the point, we'd very much like to hear from similar resource centres which are being

(continued on page 8)

CANADIAN ACTIVITIES IN CHINA

Saint Mary's University, Halifax, Nova Scotia, is coordinating a language and culture project in China on behalf of the Canadian International Development Agency.

The project is aimed at providing English or French language training for all Chinese students and scholars participating in CIDA - aided programs in Canada or in China.

The language training will be carried out at the Beijing Institute of Foreign Trade in Beijing (Peking), China. The program opened in April of this year with 3 Canadian teachers and plans to have 10 Canadian teachers when the second semester opens in September 1983.

Saint Mary's University is currently accepting applications for those interested in teaching English or French in China on 6 month renewable contracts. Canadian citizenship is one criterion of selection; for a complete list of qualifications inquiries should be directed to:

China Project Office
Saint Mary's University
Halifax, Nova Scotia
CANADA B3H 3C3

TESL Canada is also participating in this CIDA - sponsored language program. A TESL Canada China Committee has been established with the following official mandate:

a) to establish a network of Canadian ESL professionals who have taught in China,

b) to establish professional contact with China-Canada projects and to promote the expertise and involvement of TESL Canada in such projects,

c) to disseminate cultural and teaching information about Chinese foreign students/researchers to Canadian institutions receiving such students/researchers.

In order to accomplish these goals as well as to achieve more adequate representation, four regional representatives have been selected to serve as liason persons. Their duties include the dissemination and gathering of information.

Current tasks of the committee include updating lists of those who have taught ESL in China and are willing to act as resource persons, the preparation of a briefing package for those who are going to teach in China, and the preparation of a briefing package for those Canadian institutions who are receiving PRC scholars/students.

The China Committee has also been asked to provide input into the CIDA funded institute at Beijing. One specific task accomplished by the TESL Canada was the compilation of a list of materials to be used at the Institute.

For more information on TESL Canada China Committee, contact:

James Patrie
Dept. of Elementary Education
University of Alberta
Edmonton, AB
CANADA
(403) 432-5432

[information excerpted from TESL Canada Newsletter, March 1983.]

AIMAV PROJECT ON LANGUAGE INSTRUCTION

What are the major methodological approaches in foreign-language teaching in various parts of the world? Which role does the mother tongue of the learners play in the instructional process? Is multilingualism a widespread phenomenon? These are some of the questions which AIMAV (Association Internationale pour la Recherche et la Diffusion des Methodes Audio-Visuelles et Structuro-Globales) is trying to answer in connection with a research project conducted on behalf of Unesco's Division of Structures, Content, Methods and Techniques of Education. The aim of the study is to analyze and evaluate the current situation of second and foreign language teaching and learning all around the globe. Relevant information is obtained by means of a questionnaire which has been sent to individuals and institutions. Those who wish to participate in the project can obtain further information and copies of the questionnaire from: Eddy Rosseel, Assistant Secretary of AIMAV, University, Faculty of Philosophy and Letters, Blandijnberg 2, B-9000 Gent, Belgium.
[Reprinted from Alsed-FIPLV Newsletter No. 29].

"ENGLISH FOR THE HEALTH SCIENCES"

Vancouver Community College (CANADA) has recently completed a project to assess the need for increased on-site ESL instruction in British Colombia for candidates writing licensing examinations in the health sciences. Elizabeth Kirley and Barbara Gray-Richards have written up the findings in a report entitled "English for the Health Sciences".

Excerpted below are the revised goals and recommendations from this significant report. To obtain a full copy of the report, and information on costs, write: Barbara Gray-Richards, Vancouver Community College, King Edward Campus, 2750 Oak Street, Vancouver BC, V6H 3N2, (604) 731-4614

GOALS OF THE PROJECT

As originally proposed, the project had seven objectives. As the study progressed, it became apparent that these goals required revision. At the same time, the scope of the project was significantly broadened when the original contact list of five licensing bodies was increased to twenty-four. This incrsased scope resulted in the identification of additional goals. The revised objectives were as follows:

1. to examine the health sciences area in general to identify groups of potential learners;
2. to examine language screening employed prior to the licensing examinations;
3. to determine why non-native speakers fail licensing examinations;
4. to determine whether deficiencies were in general English or technical English if language deficiency proved to be a contributing factor;
5. to obtain the following statistics on licensing examination from licensing bodies and testing services:
    a) number of licensed members in each body,
    b) number of qualifying examination sessions held per year,
    c) number of candidates per session,
    d) number of failures per session,
    e) number of non-native speakers writing per session,
    f) number of non-native speakers failing per session, and,
    g) number of times a candidate may attempt the examination;
6. to determine which resources are suggested for upgrading failed candidates;
7. to determine the interest of licensing bodies in on-site instruction;
8. to investigate sources of space and funding;
9. to conduct a survey of training institutions to document the following:
    a) health science programs offered,
    b) English proficiency tests administered prior to acceptance and acceptable scores on each test, and
    c) courses offered in English, communications, or ESL open to non-native speakers in health science programs;
10. to interview failed candidates for licensing examinations in order to identify problems encountered and options available to improve candidacy; and,
11. to write a report detailing needs identified and recommending an appropriate course of action to meet such needs.

Recommendations

The following recommendations are based on the findings outlined in this report:

1. that a curriculum be developed, and its effectiveness tested by implementation of a pilot program, to meet the language needs of each discipline expressing them in this study;
2. that licensing bodies in the health science disciplines be encouraged to keep formal records on non-native speaking candidates applying for licensure;
3. that closer liaison be established between licensing bodies and institutions offering testing and language up-grading facilities for the purpose of identifying and meeting language deficiences of non-native speaking applicants;
4. that institutions offering programs in the health sciences be encouraged to test proficiency of potential graduates in written and oral English;
5. that such tests of English proficiency be designed to include a component which would distinguish between general communicative abilities and occupation-specific knowledge of the subject.
6. that records kept on the Vancouver Community College English Language Assessment candidates be regularly reviewed to determine those expressing career goals in the health sciences field and that such candidates be offered appropriate language assistance.
7. that licensing boards be invited to consider the concept of pre-immigration language evaluation for provincial licensure as presently practised by the United States Department of Immigration.

    Two recently passed legislative items have effectively placed the language screening process at the pre-immigration stage for health science professionals and paraprofessionals: The commission on Graduates of Foreign Nursing Schools (CGFNS) test for those nurses desiring immigration, and the pre-certification rule for doctors and nurses in foreign countries.

AN APPLIED DISCOURSE ANALYSIS
OF
ENGLISH LEGISLATIVE WRITING

V.K. BHATIA

A Language Studies Unit Research Report - May 1983 (145 pages)

This monograph reports on a linguistic analysis of a major recent piece of English legislation, 'The Housing Act 1980', and, in particular, it examines the role of qualifications in the structuring of the legislative statement. It offers a detailed account of the ten major qualification-types identified in the corpus, concentrating on the surface form they take, the features of legislative statements they textualize and the syntactic positions to which they are generally assigned in the statement of such provisions. The emerging hypotheses are also verified by obtaining a specialist reaction from a Parliamentary Counsel, largely responsible for the writing of the Act. The study also attempts to convert the main linguistic findings into a series of pedagogical generalizations, and offers indications of how this may be applied in EALP situations.

As the study proposes a rationale for the particular difficulties facing the reader of such texts, it should also be of relevance to all those concerned with 'Plain English' campaigns and with the advantages and disadvantages of radically simplified legislative statements. It may also be of interest to those members of the legal profession who become involved with drafting and with the teaching of its principles to their junior colleagues.

Language Studies Unit
Sumpner Building
University of Aston in Birmingham
Gosta Green
Birmingham B4 7ET
U.K.

Price: £5.00 + overseas postage (if applicable) - £1.50 surface; £2.50 air
Cheques payable to 'University of Aston in Birmingham'

RADIO AND ELT

"Just The Three of Us" is a ten episode radio series of ELT programs made and broadcast in Alberta, Canada. The series is the result of a 9 month project funded by the Multi-Cultural Program of the Government of Canada. The work was done in 5 phases: 1) research, 2) creative planning and preparation, 3) field testing, approval promotion, 4) production, 5) transmission, distribution and evaluation. The series links topic-oriented content such as unemployment, consumerism, the educational system and immigration to linguistic functions and notions.

The materials were developed especially to exploit the soap-opera format of radio by focusing on oral competence within a functional framework. Skill areas are developed through structured language exercises and practical tasks and through community-oriented assignments which are discussed during telephone tutorials with a trained volunteer.

The series includes ten 20 minute radio soap operas, a photo story workbook, two exercise cassettes, and a tutorial network. It is designed for intermediate ESL students.

Just the Three of Us, by Rose Grotsky and others, is available from: Aruska ESL Radio Project, 200 A, 223 12th Avenue S.W., Calgary, Alberta, T2R 0G9, (403) 262-2633.

Technical Communication Program at Rensselaer

Rensselaer Polytechnic Institute, in Troy, New York, has a masters and a Ph.D. program in technical communication.

The masters program, which leads to an M.S. in Technical Writing or an M.S. in Technical Communication, is the oldest such program in the country; it was established in 1955. The Technical Communication degree has a more empirical emphasis, but both degrees stress practical skills and lead to jobs in industry and government. The program accepts students from widely varying backgrounds, from fields as diverse as literature and engineering.

The Ph.D. program in Communication and Rhetoric is also well established: it began in the mid-1960's. The technical communication track, however, is only two years old. Students may prepare for teaching careers in technical communication or in positions in industry and government which require skills in analyzing and designing human communication systems and practices.
[Excerpted from Simply Stated Issue #34]

TWO NEW PUBLICATIONS

From the Classroom to the Workplace: Teaching ESL to Adults, a compendium of teacher resource materials produced by the Language and Orientation Resource Center, compiled and edited by the ERIC Clearinghouse on Languages and Linguistics, and published by the Center for Applied Linguistics, is now available. The main topics include: (1) program design considerations for ESL, (2) teaching ESL in a multilevel classroom, (3) teaching ESL to competencies, (4) manpower/vocational ESL, (5) teaching English to refugee adults, (6) ESL in the workplace, and (7) teaching ESL to non-literate adults. A general introduction and a bibliography are also included. To place an order or for further information, write to Center for Applied Linguistics, P.O. Box 4866, Hampden Station, Baltimore, MD 21211.

Resources (cont.)

Send for the new fact sheet, "Testing Speaking Proficiency: The Oral Interview" by Pardee Lowe, Jr. and Judith E. Liskin-Gasparro. The oral interview as a testing device is described as it developed from the experience of the Foreign Service Institute. A list of human resources and a bibliography are also included. Also ask for the latest free minibibliography, "Audiovisual Aids in the ESL Classroom."
Write to:
User Services
ERIC Clearinghouse on Languages and Linguistics
3520 Prospect Street, N.W.
Washington, DC 20007

CEBAL VOLUME 6, 1983

CEBAL is a publication series containing linguistic studies and descriptions of research work carried out at the Language Institutes of the Copenhagen School of Economics and Business Administration. The range of papers and monographs published includes studies in both general and special languages, foreign social and institutional background, and language teaching methods.

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Lita Lundquist:

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ANNOUNCEMENTS

ESPMENA RETURNS

The ESPMENA Bulletin has recently resumed regular publication according to the co-editor, Stephen Andre.

They are very keen to keep their readers up-to-date with relevant research and materials development projects taking place in different parts of the world.

If, therefore, you or any one you know is engaged in such projects and would be prepared to send them either a paper or a short report, they would be extremely grateful.

Address inquiries to: Stephen Andre
P.O. Box 1253
Khartoum
SUDAN

JOB PLACEMENT

ESL INSTRUCTORS

International training company is accepting applications for ESL Instructors and Curriculum Specialists to travel on single status and work in the Middle East beginning in September, 1983. Will teach technical English and prepare lesson plans and teaching materials. MA in TESL preferred, with BA in Linguistics or equivalent, coupled with TEFL certification and/or minimum two years TEFL teaching experience, preferably to Middle Eastern students. Competitive salary and per diem. Benefits include free housing, generous R & R, medical, dental, and life insurance, etc. For more information send resume or call:

Roberta Kushen
Director of Personnel
Systran Inc.
70 W. Hubbard St.
Chicago, IL. 60610
USA
(312) 321-0707

THE WORLD OF LSP II
revised/updated edition

Owing to the rapid expansion which recent years have witnessed in the field of Language for Special Purposes (LSP), and the gratifying interest with which the first edition (1981) was received, a revised and updated edition of "The World of LSP" (1984) is now imperative.

Requests for questionnaires are welcome. Please apply to: UNESCO ALSED LSP NETWORK, Jennifer Draskau & Jørgen Hødt, The Copenhagen School of Economics, 7 Fabrikvej, DK-2000 Copenhagen F, DENMARK

English Usage
Ely J. Marquez & J. Donald Bowen.
Massachusetts: Newbury House, Inc.
1983. 159 pp+.

Reviewed by Deborah Healey
English Language Institute
Oregon State University

Question: When does any army sergeant say,"Please"?
Answer: Never

Question: When does a student of ESL/EFL say, "Please"?
Answer: Far too often.

English Usage is about form and function in the English language--it is not a sociolinguistic survey, but a workbook with oral and written exercises. Grammar provides the framework for the functions discussed in English Usage, but this is clearly not a grammar book. The authors assume that the students using this book are fairly proficient in English (450-550 TOEFL), so grammar explanations are kept to the minimum necessary to clarify the language functions being discussed. For example, the chapter on modals briefly reviews the rules governing modals (no "to", no "-s", irregular past), then goes on at length into the uses of modals for making polite requests, giving advice, speculating and making inferences.

In brief, English Usage is organized with grammar and function as follows:

Chapter 1:	Overview of form and function in English
Chapter 2:	Responses to different types of questions: Being non-commital, encouraging further conversation
Chapter 3:	Statements and questions: Using appropriate tag question, recognizing sarcasm
Chapter 4:	Commands and requests: Matching type to situation, being polite, recognizing inappropriate responses
Chapter 5:	Exclamations: greeting, leave-taking, expressing regret
Chapter 6:	Modals: being polite and/or formal, making inferences, giving advice
Chapter 7-9:	Register/Vocabulary choice: using appropriate level of formality in writing and speaking
Chapter 10-11:	Verb plus particle (two-word verbs): recognizing changes in meaning (these were the chapters least related to function and most concerned with grammar)
Chapter 12:	Synonymy: focusing on the actor or the action, giving negative and positive connotations
Chapter 13:	Ambiguity: recognizing and using ambiguity (the functions here were not clearly spelled out)
Chapter 14:	Articles: generalizing and individualizing

The grammar framework has certain advantages and disadvantages for classroom use. On the negative side, there is a "supermarket" feel to the exercises, since most of the time, an exercise is made up of a number of sentences or interactions that are not related to each other contextually. For example, in an exercise on recognizing non-committal responses, students are talking to a friend they haven't seen for a long time in sentence 7, talking about crime with their sponsor at an urban university in #8, and in #9, watching a beauty contest on TV at their host family's home.[1] In an exercise on using questions, students tell a friend to hurry up in #6, ask what they missed when they were absent from class in #7, and, playing the role of teachers in #8, get background information on the students in their class.[2]

The advantage of this type of organization is that the students are forced to use language deliberately. By using one type of language in several contexts, students do not become so caught up in a communication activity that they lose sight of how the meaning is getting across. Taking a function out of a single specific context may make it easier for students to use that function in any appropriate situation.

For those considering using this text, there are some other points that should be noted. Although the majority of the sentences and interactions in the text refer to everyday social situations, there is a strong university orientation here, with professors, foreign student advisors, term papers and dorms appearing regularly. In contrast, refugee- and business- related items, for example, come up only sporadically.

Another factor to think about is the size of the text. The 14 chapters have between 3 and 17 exercises each, and roughly 10 sentences/interactions per exercise. Rarely is there only one correct answer to an item in an exercise, something which encourages discussion, but prevents getting through quickly. While this book could be used as the main text in an advanced structure class, the authors suggest using English Usage with its related grammar tests, English Grammar I and English Grammar II, in a combined grammar and usage class. Even if English Usage were the sole text, a 3-hour/week class in a ten-week term would hardly do justice to the material (or to the price). As a structure-writing teacher, I would happily use this text as a supplement in my six-hour/week, ten-week class, but I would have a hard time asking people to buy a book we could only get 1/3 to 1/2 of the way through by the end of term.

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[1] pp 18-19

[2] p 34

An additional, perhaps crucial, point for the would-be user to consider is the English Usage is not so much about "English" usage as about "American" usage. As a result, the text has little relevance to someone who does not or will not be coming into contact with Americans. A related point is that since the book is heavy on the social context in usage, the teacher had better know a great deal about the American social context. The authors give explanations and examples before each exercise, and there is an answer key in the back of the book, but a teacher should be able to flesh out the explanations and answers in order to use this book successfully.

In sum, English Usage would be best used in a US program for university or university-bound students, in a class taught by someone quite familiar with American language and culture. As noted above, there is a wealth of material in English Usage, making the text more than long enough for a 10-week usage class; the book would also provide excellent supplemental material for a grammar, writing or speech class.

After all, where else could you find dialogues like these:

Mary (answering the telephone): Hello.

Voice on the other end of the line: Is Anna home?

Mary: Yes. (hangs up)

and;

A man is jogging on the right side of a narrow street. A car slows down alongside him.

Woman (calling out to him): Do you know where the post office is?

Jogger (without looking at her): Yes. (moves on without missing a step) 3

---

[3] p 63--a discussion on humor via inappropriate responses

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[Editors note: For more information about the project, write Maria Antonietta Alba Celani, Coordinadora de Projeto Ingles Instrumental, at the following address. To respond to the letter, write John Holmes at the same address.]

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Advantages and Disadvantages of the Team Approach to Developing and Teaching an E.S.P. Programme

1. Introduction

Within the context of this article, a team teaching situation is defined as one in which several teachers adhere strictly to the same programme even though each teaches a different group of students. One of the teachers functions as course coordinator, ensuring that each of the others receives the weekly programme and the teaching materials, and understands what should be achieved by the end of the week. The same tests and examinations are administered to all students registered for the course, and all teachers involved in teaching the course are involved in marking the tests and examinations. All students registered for the course are treated as a single group when it comes to assigning grades for the course based on aggregate test and examination scores.

Another important aspect of the team teaching situation as defined here is that the development of a new course is the task of two or more teachers/course developers working in cooperation. The second time that the course is offered, it is possible that a single teacher/course developer will be solely responsible for making modifications to the original course in the light of the initial experiences teaching it, but more often than not, two or more teachers involved in the course will be made responsible for modifying original teaching units or completely redesigning them. Thus, the team approach applies both to the teaching and to the development of teaching and evaluation materials.

In contrast to the team teaching/course development situation, an individualised teaching/course development situation is defined as one in which the teacher need make little or no reference to any other person teaching the same course. Thus, he alone decides such matters as which materials to use, the sequence in which they will be used, the methods by which they will be exploited, the time-scale for each activity, and how student progress will be evaluated. Often the teacher in such a situation will be provided with a syllabus, but essentially he or she is the sole arbiter of what shall take place in his or her classroom.

In certain teaching situations, the team teaching approach provides solutions to problems that would be difficult or impossible to solve using the individualised teaching approach. Some of the advantages will be examined in the next section of this article. Unfortunately, few problems are solved without creating fresh ones. These, the disadvantages of the team teaching approach, will be considered in the third section of this article. Solutions to the problems will be suggested in the final section.

2. T.E.F.L. in the English Language Division, Faculty of Medicine, Kuwait University

The T.E.F.L. situation in the Faculty of Medicine is well suited to the team teaching and team course development approach for several reasons. First, our students form a very homogeneous group from many important pedagogical standpoints. Next, teaching staff, staff accommodation, teaching accommodation, and timetabling factors facilitate the employment of this approach. Finally, given the necessity to mount E.S.P. programme plus the lack of suitable textbooks, the individualised approach would be unacceptably inefficient in our teaching situation.

Each annual intake of freshman students in the Faculty is composed of 65 premedical students registered for a 7 year programme leading to degrees B.Med. Sc., M.B., Ch.B., and about 75 allied health students registered for 4 year programmes leading to a B.Sc. in Radiology, Physiotherapy, Medical Records, or Medical Laboratory Technology. The students in each group are homogeneous from several standpoints of importance when designing E.F.L. programs and courses:

1. They are all native speakers of Arabic, and have similar social backgrounds.
2. They have similar primary, intermediate, and high school educational experiences, and are all about the same age.
3. Their previous experiences of English learning are similar; some 1000 hours of English instruction over a period of about 6 years.
4. The members of each group of student (Premedicine, Physiotherapy, etc.) follow largely the same program of study at Kuwait University and in the hospital system of the State of Kuwait.
5. The members of each group will follow similar careers within the State of Kuwait.

The situation described above may be contrasted with that in the many T.E.F.L. institutions in Britain and the U.S.A. that prepare overseas students for entry into academic, professional or vocational programmes in British and American universities and other educational institutions. In these T.E.F.L. institutions, typical classes are composed of students from many countries, from a wide variety of social and educational backgrounds, with a considerable variety of immediate and long-term academic and career goals, etc. This heterogeneity makes it impossible to devise courses that satisfy the majority of any student's needs.

In the team teaching situation, it is essential that the course coordinator and teachers can confer with each other frequently and, periodically, for extended periods of time. The following important factors make this posssible in the English Language Division of Kuwait University Faculty of Medicine:

1. Teachers have a reasonable teaching load - about 15 hours per week, and the course coordinator's teaching load is a maximum of 10 hours.
2. The large majority of teachers are employed full-time by Kuwait University. Thus, our situation may be contrasted with that in many British and American institutions where a significant proportion of the teachers are part-timers who, because they need to teach in more than one institution in order to earn a living, have to maintain tight schedules that allow little time for conferring with colleagues.
3. Our teaching staff have good, uncrowded office accommodation, and the offices are close to each other.
4. All our classrooms are either close by or next to each other, not scattered about a large campus.
5. Last, but far from least: All sections of students registered for a particular English course are scheduled to meet at identical times on the same days. This ensures that the 5-6 teachers involved in teaching each of our main courses each semester have the same timetable.

Having already experienced 6 years of general English in school,our premedical and allied health students would respond very negatively to yet more general English courses. For this and other self evident reasons, two English and study skills programs closely geared to the students' current and future needs have been developed, one for each main group of students. In addition, within the allied health program, components of the second, third and fourth courses have been geared specifically to the needs of each of the four sub-groups (Physiotherapists, etc.). Depending on your particular preference, these programs might be categorised as English for Specific Purposes (E.S.P.), English for Academic Purposes (E.A.P.), English for Applied Linguistic Purposes (E.A.L.P.), etc.

There are very few published materials suitable for our students' needs, particularly materials associated with films, videotapes, slides and cassettes - which form an important component of all our courses. Consequently, we have had to develop a large proportion of our teaching materials ourselves. The magnitude of this task may be gauged from the fact that developing the first draft of a film-based unit generating 4-5 hours of integrated class activities can take a total of over 45 hours. This might be itemized as follows:

1. locating and viewing 5 potentially useful films, each about 10 minutes in length	5 hours
2. viewing 2-3 of the films by a second teacher & follow-up discussion	1 1/2 hours
3. recording the sound track of the film chosen, then writing out the script	3 1/2 hours
4. locating 2-3 reading passages on the same (or related) topic as the film	5 hours
5. preparing the reading passages for us in the unit: editing, shortening, rewriting	3 hours
6. developing draft exercises to be used before, during and after viewing the film	3 hours
7. developing draft exercises to exploit the reading passages	3 hours
8. composing a draft teacher's information sheet to accompany the unit	2 hours
9. review and editing of draft exercises, reading passages, etc. by at least one other teacher & discussion with the originator of the unit	4 hours
10. typing the master of the film script, reading passages, etc.	2 hours
11. organizing the duplication of all the materials for, say, 70 students + 5 teachers	1 hour
12. collating the duplicated materials, packing them, and filing the masters	2 hours
sub-total:	35 hours
13. Add 40% of the estimated total constructive work time to the sub-total to account for interruptions, travel time, administrative problems, waiting time, etc.	13.2 hours
total:	48.2 hours

In my experience, an average of 10 man-hours of preparatory work to generate one hour of class work is probably an underestimate of the time required to develop E.S.P. teaching materials, especially when account is taken of the time that needs to be expended drafting and redrafting first the outline syllabus, then the detailed one. However, it does provide a credible basic formula for estimating the total time required to develop a new course or modify an existing one.

In Table 1 below, the above formula (10 preparatory hours = 1 class hour) has been used to estimate the total time required to develop the four main courses in each of our two programmes. Clearly, in our teaching situation, the total number of man-hours required to develop E.S.P. materials for a complete program far exceeds what could be expected of the individual teacher/course developer (Effectively, our instructors work about a 38-week "year". Assuming a 40-hour work week to include class and preparation time, the total number of hours available per "year" is 1520). Consequently, if an individualised teaching/course development approach had been adopted here, there is no way in which E.S.P. courses properly geared to our students' needs could have been developed. And this is to consider the question only from the point of view of the quantity of preparatory work required.

1981-1983
TABLE 1: Weekly and total class contact hours in the premedical and allied health English programmes

	PREMEDICAL			ALLIED HEALTH		
	Course	Contact Hours		Course	Contact Hours	
		Weekly	Total		Weekly	Total
Semester 1 Year 1	141	10	150	151	10	150
Semester 2 Year 1	142	5	75	152	8	120
Semester 1 Year 2	143	5	75	153	5	75
Semester 2 Year 2	241	6	90	251	5	75
Total contact hours over 4 semesters			391			420
Total preparatory work @10 man-hours per class hour			3910			4200

When one turns to consider the quality of course curricula and teaching materials, the potential advantages of the team approach in the field of E.S.P. are equally clear. Nothing is perfect, particularly in education, but a complex course that has been created by more than one teacher and subjected to the scrutiny and constructuive criticism of several teachers and many students should be more satisfactory than one that is the unassisted product of a single teacher, no matter how gifted he is, and how broad his experience.

Another important advantage of the team teaching/course development approach is continuity. The regimentation that is at the core of the team teaching approach could not be maintained without clear written descriptions of a course in the form of the following documents: the course outline or syllabus, weekly timetables, teacher's notes for each unit, the student's notes, the teaching materials themselves and various other written bulletins. All these documents are methodically filed together with copies of all tests and examinations, statistical analyses of the tests and examinations, the coordinator's and teachers' terminal appraisals of the course, and an analysis of the students' response to a questionnaire concerning all aspects of the course. As a result, when the time comes to teach the course again, the new course coordinator needs only study the archive files to obtain a precise description of what was done before plus an evaluation of the outcome.

These carefully maintained course archives not only ease the task of the course coordinator, they also facilitate the induction of new teaching staff. In addition, they make it posssible to revise the course in a rational and methodical manner.

3. Disadvantages of Team Teaching and Course Development

To gain the maximum benefit from the team approach to course development and teaching, four fundamental problems need to be solved:

1. Where a programme consists of several courses, the course coordinator system can result in each course being seen as a discrete entity rather than as an episode integrally connected with the others in the series.

2. In a team teaching/course development situation, there tends to be far too much material in a course and too many activities for any but the most gifted students.

3. Coordinators/course developers tend to underestimate the amount of time needed to produce teaching materials of high quality; as a result, they tend to undertake revisions of existing courses that are far too extended in scope. This can exacerbate problems 1 and 2 above, and in consequence, #4 below.

4. As a result of problem #2 above, and because of the lockstep system associated with team teaching (each student following the same daily and weekly programme as every other student), there can be periods in a course when teachers are forced to concentrate on simply getting through the scheduled activities rather than ensuring that the majority of students in the class are maintaining steady progress.

An efficient individual soon gains an established position as the coordinator/developer of a particular course, or even of a particular course in one semester and of another course in the next. Because the duties of coordinator are so time-consuming, especially if he is always preparing his next semester's course in the same semester as he is coordinating the other, he may teach only these two courses. This restricts his experience of the programme as a whole (4 courses), and encourages the tendency for him to regard the course that he is currently responsible for as a discrete package, that is, as an end in itself instead of as an interconnected component of the total programme. As a result, there is not always a clearly discernable progression from what was taught in the previous course towards what will be taught in the next. (This phenomenon is not limited to the team teaching situation. Many intensive E.F.L. programmes, for example, are divided up on the basis of "the four skills": a 25 class-hour week might consist of such elements as a 6-hour reading course, a 6-hour writing course, a 2-hour conversation course, a 3-hour language laboratory course, etc., each being the responsibility of a different teacher. Ideally, one supposes, these courses would be complementary and formally integrated. But it is extraordinarily difficult to achieve this in a situation where individualised teaching is the accepted norm.)

The tendency on the part of a coordinator/course developer to include too many materials and activities in a course is possibly partly due to his desire not to be thought to be failing in his duties as a host, so to speak: just as a dinner guest should not be allowed to leave the table feeling hungry, so there should be no risk of a teacher on his team feeling that he has too little material to fill in the class hours. More frequently, I suggest, the excess of material is the result of two pressures: first, the self-generated pressure due to the coordinator's professionalism; second, the pressure of time under which he or she works.

As I have implied, the person appointed as a coordinator/course developer tends to be highly professional and very efficient because this is the type of person that the responsibility demands. Unfortunately, in a coordinator these very qualities can prove to be disadvantageous, for the intense professionalism of a coordinator can lead him to attempt deliberately to preclude any teacher criticism of the course for which he is responsible in respect of the thoroughness with which it covers each and every objective laid down in the course curriculum.

The pressure of time under which most course coordinators/developers work severly limits the amount of top quality revision of an existing course that they can undertake. Yet few can resist the temptation to begin at least tinkering with the odd slightly unsatisfactory unit. Unfortunately, the elements of a comples E.S.P. course tend to be so interconnected that even minimal tinkering can lead to the decision that the revision needs to be thoroughgoing. Indeed, this progression from limited modification to complete revision bears certain similarities to the all-too-familiar process of home redecoration: you eventually give in to your wife's pressure and agree to re-paint the kitchen ceiling, put in the electrical connection that she has been asking for for years, and finally do something about the leaking faucet. Before long, in spite of the fact that you know how much it will cost and how long it will take, you have undertaken a complete remodelling job. (The strange thing is that after all the expense and turmoil, the meals that come out of the remodelled kitchen are of exactly the same quality as before the remodelling, the same high standard.) But undertaking a thoroughgoing revision of an existing E.S.P. course whilst simultaneously teaching either that course or the other one that you are coordinating is so time-consuming that it can rarely be carried out with the care and the amount of consultation with other teachers and coordinators that it requires. And because the other teachers realise how much pressure the coordinator/course developer is working under, they are loath to make any fundamental criticisms of his draft materials for new units that would entail even more work on the coordinator/course developer's part.

Thus, the vicious circle is complete: a coordinator/course developer undertakes a major revision of the imperfect elements of an existing course; he does not have sufficient time to do a satisfactory job, consequently, when he or another teacher is given the responsibility for coordinating that course again, he or the other teacher once more decides that extensive modification and revision are necessary, and the process is repeated.

One great advantage of the individualised teaching situation is that the teacher can gear the materials that he uses, the methods by which he exploits them, and the pace at which he moves through them to the capabilities of the class that he is responsible for. The teacher in a team teaching situation, on the other hand, needs to maintain a similar pace to the other teachers, using precisely the same materials as they do, no matter what the average ability level of his students. In theory, any teacher in the team is free to request a slowing down of the pace with which new materials and activities are introduced, and more time to exploit and pursue them. But even when they are asked by the coordinator how well their class is keeping up (and the coordinator asks this question at the end of each week as a matter of course), some teachers are reluctant to admit to problems if no other teacher appears to be having difficulty keeping up with the schedule. Consequently, such teachers may well find themselves simply trying to "get through the material", rather than having time to exploit it fully as was originally intended by the coordinator. This leads to frustration for both the teacher concerned and his struggling students.

These, then, seem to me to be the main problems associated with the team approach to E.S.P. course development and teaching. Unless they are solved, the potential advantages of this approach can be only partially realised.

4. Solutions to Problems Associated with the Team Approach to Developing and Teaching an E.S.P. Programme

There seems to be a tendency in many E.F.L. teachers to be dissatisfied with any teaching material that they use, be it a textbook that they themselves selected, an in-house course assembled and developed by colleagues whom they respect, or even the course that they themselves were involved in developing the previous year. In a team teaching situation, if this tendency is encouraged, or even not discouraged, it can have a negative effect on the quality of teaching materials and on the quality of teaching. Therefore, it should either be totally resisted by permitting no changes, no modifications to existing courses, or it should be strictly controlled. Permitting no changes to existing courses would result in dissatisfaction among the staff whose creativity is thereby stifled, and they would very soon move on to teaching/course development posts elsewhere. The solution would therefore appear to be to achieve a reasonably strict control whose objectives would be as follows:

1. To limit the amount of modification to existing courses to what can be achieved in the given time.
2. To ensure that the time-scale decided on for modification to a course permits adequate consultation between the course developer and his colleagues.
3. To ensure that the quality of materials produced is of a satisfactory standard.
4. To ensure that the quantity of materials and number of activities in a course are geared to the

capabilities of average students, not to those of outstanding ones.

This control can be exercised through a combination of self-discipline on the part of the course coordinators/developers and the external discipline imposed by someone with watchdog responsibilities (programme supervisor, programme coordinator, director of studies, or what you will.) The self-discipline of the course coordinator is motivated in the first place by his concern for his course and all the students who register for it, and in the second place, by his direct involvement in all curriculum policy decisions concerning the programme as a whole and each of the courses that make up the programme.

Thus, we may conceive of a curriculum committee responsible for making decisions concerning the total programme objectives and curriculum and the component course objectives and curricula. Individual course coordinators submit lists of their course objectives to the committee, then participate in the work of modifying and dovetailing them to produce a coherent, integrated series of courses whose way-stage objectives progress steadily toward the ultimate objectives of the programme as a whole.

After agreement has been reached on the programme and course objective, each coordinator next produces a course outline in the form of a series of weekly programmes, each consisting of a list of the objectives that will be targetted that week and the materials and activities by means of which it is intended that the objectives be achieved. (See Appendix 3). In addition, making use of proforma like the one in Appendix 2 and 4, the coordinator produces a rough statistical analysis of the number of occasions on which each course objective will be targetted. This permits a check to be made on whether each stated objective will be adequately covered in the course in proportion to its relative importance.

The course coordinator next presents his course outline to the supervisor together with any proposals for the modification of existing teaching materials and class activities that he might have. They then discuss the proposed modifications and how they might enable the course objectives to be achieved more effectively than before. Having come to an agreement, they then estimate the time that will be required to carry out the modifications agreed upon, and on the basis of these estimates, decide how much modification is feasible in the given time, allowing for adequate consultation with colleagues concerning first, the proposed modifications, next, the initial draft materials, third, the subsequent modifications in the light of their comments. The resulting final draft materials are than referred back to the programme supervisor for approval before being finally included in the course.

E. Frank Chaplen, M.A., Ph.D.
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APPENDICES

APPENDIX 1

Appendix 1 is a draft list of objectives for Course 141, English Language. Course 141 is the first of three courses in a programme that is intended to meet the English language and study skill needs of medical students at Kuwait University.

APPENDIX 2

Appendix 2 is the proforma that has been devised to provide a visual check on the number of occasions on which each objective on the list in Appendix 1 is targetted during the 15-week course. To the right of each objective (except L4 and L5) are 14 boxes; a cross or tick in a box indicates a week during which materials and activities are intended to provide instruction and practice with that particular objective in mind. In conjunction with the information provided in the weekly programmes and teachers' handouts, this record can be put to several uses, ranging from decisions about the composition of a test and the relative importance and weighting of each sub-test composing it to decisions about syllabus revision.

APPENDIX 3

Appendix 3 is the Week 1 programme for Course 141, English Language in Semester 1, 1982-83. This document lists objectives that are targetted during this time (2 hours per day each of the 5 days) and the materials and activities by means of which it is intended that these objectives be achieved.

APPENDIX 4

Appendix 4 shows the Appendix 2 proforma completed in respect of the Course 141 objectives targetted in Week 1, Semester 1, 1982-83.

Editor's Note: This article, complete with full appendices, is available on request from the EST Clearinghouse.

◆◆◆

Group work based on rhetorical functions: some applications in the field of English for Science and Technology (E.S.T.).

John Flowerdew

The meaningful use of rhetorical functions, such as classification, description, comparison and contrast, cause and effect etc., can be promoted through group activity. An account is presented of materials developed by the author to this end, in the field in E.S.T., at the University of Wales and at the University of Kuwait. The procedure for group work and the advantages to be derived from its use are set out in general terms. After briefly mentioning one possible use of group work in E.S.T., which involves listing advantages and disadvantages, a detailed description follows of how the technique can be used to develop the rhetorical functions of comparison and contrast and cause and effect. Possible topics, linguistic markers used in the realisation of each function, and examples of possible utterances relating to the suggested functions and topics, are provided. Next, applications to other rhetorical functions are mentioned. The amount of emphasis to be placed on using the linguistic markers is also briefly discussed. Finally, the author suggests that the rhetorical functions illustrated also play a role in "everyday" English and that the materials can be adapted to the teaching of "general" English.

Introduction

The following ideas were developed on a pre-sessional English course for post-graduate overseas students at the University of Wales (University College, Swansea) and they have subsequently been exploited overseas at the University of Kuwait. The course at Swansea was made up of three groups: Arts, Social Science, and Science. It was noted that the two former groups had more opportunity for group and pair work involving meaningful oral interaction than did the students of Science, who were required too often to do work involving the rather mechanical application of language structures and functions. An attempt was therefore made to correct this imbalance. The subject of this article is one of the strategies adopted to this end, using group work based on rhetorical functions.[1] Although the focus of the article will be on the application of the particular technique described to E.S.T., it is hoped that its relevance to other fields of English teaching will be apparent.

Group work Procedure

The use of small groups, sometimes called buzz groups, in the language teaching context is quite well documented (Barnes and Todd 1977, Byrne 1976: 80-82, 1980: 146-149, 1981, Davies 1980, Long 1977, Muggleston 1978). The procedure, briefly, is as follows. Students are divided into small groups and each group is given a topic or task to discuss. Each group has one member acting as a secretary. The groups discuss the topic or task and the secretary notes down what the group decides to report back to a subsequent plenary session. Often the topic or task will involve listing points in support of an argument. When the groups have finished, the teacher asks the secretary from one group to report on what his or her group has decided, writing up on the board or overhead projector the points which are made. The other groups may be given the opportunity to comment on these points, thus stimulating further discussion. After the first group has finished, the other groups are asked to report, adding points of their own or criticising what other groups have said. The secretary of each group will thus have the greatest opportunity to use his or her oral skills in reporting back to the plenary session, but all students will have had the opportunity to discuss the topic in their groups and make comments on what the other groups put forward. After the students have all had their say the teacher may present his own previously prepared model answer and further discussion can ensue. The model answer can also act as a basis for oral composition, individual students being asked to speak from the list of points (which, of course, are in note form). A final stage can involve the students in producing a piece of writing from the list of points, either as a group effort, in pairs, or individually.

The advantages of group work

The advantages of this group work technique are numerous. They can be listed as follows:

1. The quantity of language use is very high.
2. Meaningful oral interaction is stimulated.
3. High level problem solving skills are used.
4. The student is given the opportunity to be creative through the medium of English (of great motivation value).
5. Practice in note-taking and speaking from notes is afforded.
6. In an English for Special Purposes context the student can be made to think about his subject through the medium of English.

One possible example - listing advantages and disadvantages

One way of exploiting group activity in the E.S.T. field is to give the students a subject related topic and to ask them to list points for and against. Such topics as "Nuclear energy", or "The use of computers" might be used. Topics like those are particularly useful in exploring the social aspects of the applications of science. If the students can be grouped homogenously in respect to their particular scientific discipline, then more specialised topics can be given and the students can be asked to discuss and make their recommendation regarding the pros and cons of a particular approach to a scientific problem or task.

Examples based on rhetorical functions

Here, however, I would like to look in more detail at an application of group work which seeks to put the students in the position of being required to use two particular features of discourse, or rhetorical functions, which are commonly used in science and technology.

Comparison and Contrast

The first of these rhetorical functions is that of comparison and contrast. The same procedure can be applied as that described above with advantages and disadvantages, but instead of listing points for and against, the students in this case are required to list similarities and differences. Examples of topics used successfully with my students are "The computer and the human brain", "Animals and plants", "The atom and the solar system". In these three cases my students have come up with lists of similarities and differences as in (Fig. 1.a.). The expression of these points requires the use of certain linguistic markers associated with the particular rhetorical function of comparison and contrast. Those likely to be used are listed in (Fig. 1.b.). (Fig. 1.c.) presents examples of possible utterances created from (Figs. 1.a. and 1.b.).

Cause and Effect

The second rhetorical function which I want to illustrate here is that of cause and effect. The procedure is the same as for comparison and contrast, but in this case the two lists of points drawn up by the students relate to a. the causes and b. the effects of the phenomenon suggested by the teacher. Examples of such phenomena, which I have used, are "Pollution", "The development of alternative energy sources", "The increase of heart disease in contemporary society", or, of a more specialised nature, "The contraction of a particular disease in a medical patient", or "The breakdown of a particular machine or piece of equipment". Again, of course, the more homogenous the interests of the students the more specialised can be the topics. I leave it to the reader to work out his own lists of causes and effects for these examples. Figure (2 a.) merely sets out the topics suggested here. Linguistic markers which are likely to be needed in discussion of relations of cause and effect and examples of possible utterances are set out in (Fig. 2.b.) and (Fig. 2.c.) respectively.

Other rhetorical functions

The same group work technique can also be applied to other rhetorical functions. For example various types of description are suitable: physical description, where students have to draw up a systematic description of an object or substance, description of processes, where the various stages in a process must be listed, and description of function, where the various uses of a piece of equipment or a procedure are listed. With the rhetorical function of classification the task will involve dividing a system into its various sub-systems. Or alternatively a slightly modified procedure can be adopted here, students being given a jumbled list of items which it is possible to arrange into a system of classification. Of course these different rhetorical functions will require different linguistic markers. It is possible for the teacher to anticipate these, however, if he or she goes through the exercise himself. For example, describing a process will require items such as "first", "next", "after this", "finally", etc. Classification is likely to employ "include", "comprise", "belong to", "consist of", etc...

How much emphasis on the linguistic markers?

If group work is to be used to encourage students to think and talk about particular topics in science and technology and is not linked to any specific rhetorical function, then it can be used either to introduce a topic area for more detailed language work later, or to round off a unit of work based on the topic. Alternatively it can be used simply as a way of developing higher level language skills in general terms. If, however, group work is to be linked to a rhetorical function, as illustrated here, then the question arises as to how much emphasis to put on the linguistic markers specific to the particular function which is being focused upon. Given that the aim of group work is to foster meaningful oral interaction, it would seem that the intervention of the teacher should be at a minimum. It follows therefore that during the group work itself the teacher should allow the markers to occur as and when required and not over-encourage their use. The place to practise them, is beforehand and again afterwards in order to ensure that full value is derived from focussing on the particular rhetorical function.

Conclusion

The activity outlined above seeks to exploit the possibilities of group work in the E.S.T. context, with a view to stimulating meaingful oral interaction. The topics are based on rhetorical functions commonly used in a scientific or technical context. The two principle examples presented can serve as a model which can be adapted to other rhetorical functions and topics.

The group work activities described here, it has been explained, were developed with a specific use in mind at University College, Swansea. However, the procedure has since been successfully exploited overseas; in a pre-study and in-study University Science content at the University of Kuwait, but also in the field of "general" English. The rhetorical functions exemplified here, although particularly significant in science and technology are also important in everyday usage. Mackay and Mountford have hinted at these wider applications: "Scientific language data .... particularly lends itself to examination in such terms (i.e. of rhetorical functions) since the scientist is constantly involved in performing fairly explicit acts of defining, identifying, comparing, differentiating, classifying, etc... I am not suggesting the scientist is the only one who performs these acts - we all perform them in everyday life - but the scientist is more explicitly conscious of the rhetorical value of the language he is using." (my emphasis)

All the teacher has to do in order to apply these functions to the language of "everyday life" is to select topics of a less specialised nature than those given here, tailored to fit the interests and needs of his or her own students.

COMPARISON AND CONTRAST

a. Topics

The computer and the human brain	The atom and the solar system	Animals and plants
Similarities	Similarities	Similarities
complex structure delicate structure memory storage of information	shape movement orbital structure energy content variety of components	composed of cells growth by cell growth or by division food requirement digestion excretion growth response to stimuli
Differences	Differences	Differences
artificial/natural capacity to think capacity to dream ease of repair material composition	overall size relative size within system movement of parts charge form of orbit speed	absence of cell walls in animals manner of cell division source of food (animals take it, plants make it)

b. Linguistic Markers2

Comparison

are the same
is the same as
resembles ... in
has the same ... as
is/are similar in that
has a similar ... to
have ... in common
both

Contrast

less than
is different from ... in
while/whereas
is + comparative adj. + than
however
but
on the other hand
instead
in contrast
on the contrary
conversely

c. Examples of possible utterances

"Both the computer and the brain have a complex structure"
"The human brain has a capacity to think, whereas the computer does not."
"The shape of the atom and the solar system are the same."
"The overall size of the solar system is a lot greater than that of the atom."
"Plants and animals are similar in that they are composed of cells."
"Most plant cells have cell walls. Animal cells, on the other hand do not."

Fig.1

Cause and effect

a. Sample topics

Pollution
The development of alternative energy sources
The increase of heart disease in contamporary society
The contraction of whooping cough
The breakdown of a conveyor belt

b. Linguistic markers

Cause	Effect
because	one effect of
since	one result of
as	one consequence
owing to	therefore
due to	so
the reason for	thus
cause (vb.)	hence
is/are caused by	consequently
result from	so that
lead to	with the result that
is/are brought about by	give rise to

c. Examples of possible utterances

"Pollution is due to a number of causes".
"alternative energy sources are being developed because the price of petroleum has risen greatly."
"An increase in heart disease has been caused partly by increased mental stress in contemporary society."
"Whooping cough is a contagious disease, so patients must be kept in isolation."
"One effect of the breakdown of a conveyor belt is a loss of production."

Fig.2

Notes

1 Rhetorical functions frequently employed in the language of science and technology include definition, classification, description, exemplification, comparison and contrast, cause and effect, etc. (Mackay and Mountford 1978 and Trimble and Trimble 1977).
2 In addition to the exponents certain other cohesive devices are of particular importance here. Cataphoric reference (pointing forward by supposition), for example, is one possibility. An example of a cataphoric utterance here might be - "The similarities between the atom and the solar system are as follows...". Structural parallelism may also play a role, as for example in - "The human brain is made of tissue. A computer is made of metal and plastic", especially if a whole series of contrasts is being made. (See Halliday and Hassan, (1976), for a full discussion of cohesion).

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FROM THE EDITOR

ESP receives increasing recognition as a major force within ESL. Yet, concommitant with the increased influence is the need--indeed the responsibility for rigorous scholarly examination.

The 1982 Clearinghouse bibliography outlined an exciting step to further such examination, with the classification of Clearinghouse holdings into four general areas and various subfields. This 1983 bibliography extends the ordering of resources to include single entry reference for all special issues of the ESP NEWSLETTER for years 1 to 6 (1977-1983). Our next step to facilitate scholarly examination is to classify the vast wealth of ESP information published in the newsletter since its beginning in 1977. We hope to have this completed by the summer of 1984, in time for use by participants of the TESOL Summer Institute which Oregon State is hosting.

The mandate of the Clearinghouse continues to be the collection and dissemination of ESP literature. The increased size of this bibliography is a reflection of the active participation of our readers. We encourage you to continue to submit articles for inclusion in the Clearinghouse and/or for publication in the newsletter. It is participation by those involved which enables us to most adequately fulfill our mandate.

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EDITOR'S CORRECTION

In the August issue, the article by John Flowerdew, "Group Work based on Rhetorical Functions: Some Applications in the field of English for Science and Technology (E.S.T.)", omitted the professional data. The introduction should have included the following bio data:

John Flowerdew, M.Ed.
University of Kuwait
State of Kuwait

Also in the August issue, the professional data for E. Frank Chaplin appeared incorrectly. Chaplen wrote the article entitled "Advantages and Disadvantages of the Team Approach to Developing and Teaching an E.S.P. Programme". The Chaplen bio data should have read as follows:

E. Frank Chaplen, M.A., Ph.D.
University of Kuwait
State of Kuwait

We apologize for the confusion caused by these errors.

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The Fifth Los Angeles Second Language Research Forum (SLRF) will be held November 11-13, 1983 at the University of Southern California. The plenary speakers will be Christopher Candlin, Stephen Krashen, Tracy Terrell, and Merrill Swain. There will be papers in the areas of second language teaching, language acquisition research, discourse analysis, interlanguage, and phonology. A special panel on Computer-Assisted Instruction (CAI) will discuss the application of CAI to second language learning and the relationship fo work on artificial intelligence to computer-assisted language learning. For registration information contact: Roann Altman, SLRF '83 Conference Chair, American Language Institute, JEF 251, University of Southern California, University Park Mc-1294, Los Angeles, CA 90089-1294; phone (213) 743-2678.

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Further information and invitations to participate in the seminar can be obtained from the following address:

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(Attention: Chairman
Seminar Planning Committee)
SEAMEO Regional Language Centre
RELC Building
30 Orange Grove Road
Singapore 1025

ISSUE 79
OCTOBER 1983

English For Specific Purposes

SPECIAL ISSUE

ESP IN SOUTH AMERICA: CHILE, PART I

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FROM THE GUEST EDITOR

The kind invitation extended by the ESP Newsletter allows me the opportunity to present to a wider audience the experience and knowledge accumulated in Chile in recent years. The various aspects covered by current Chilean ESP operations have been organized for this special issue under three major headings of Research, Development and Courses.

One of the pleasant surprises of the editor's work was the way in which the first two contributions for the Research section neatly complement each other by focusing on the same topic: the complex noun phrase.

Two of the contributions under Development touch upon a crucial aspect of materials production: "authentic" vs. "pedagogic" texts. This is followed by a new side of development which is the production of bilingual glossaries. A selected bibliography of locally-produced ESP materials is also included here.

The final section looks at ESP courses offered at secondary and teritary levels and closes with a detailed report on the ESP component in a recently launched teacher training scheme.

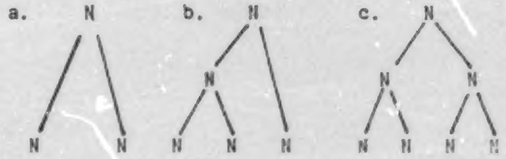
* * *

THE BINARY STRUCTURE OF COMPLEX NOMINALS IN TECHNICAL MANUALS

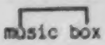
Guillermo Latorre
Instituto de Letras, Universidad Católica de Chile

The structures variously known as complex nominals (Levi, 1978), noun compounds (Huckin and Olsen, 1980 and forthcoming), compound nominal phrases (Salager, 1982) have often been singled out in the literature as a feature very likely to cause difficulty to the EST learner facing a technical text. The object of the present paper is to study one derivational property of these structures, namely binary adjunction, and to show how a knowledge of such property can result in pedagogical formulations helpful to the student.

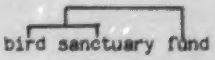
Despite their apparent diversity at surface level, all CNs have a common structure formed by the joining of just two nouns (or other units) at a time, producing distinctive branching patterns (Levi, 1978: 246). These patterns can be illustrated thus (Levi, 1982: 157):

(1)


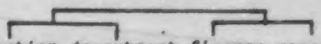
The phrases in (2) below show the surface realization of (1)a, b and c. The lexical bonds joining the components are indicated by means of inverted brackets (examples from Levi, 1982).



(2) a. music box

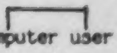


b. bird sanctuary fund



c. recreation department finance manager

The binary patterns become very clear if we look at some attested examples taken from computer manuals and apply to them the modified form of immediate constituent bracketing used for the sentences in (2) above.[1] Thus, the simplest structure in (1)a corresponds to the very common string (N + N) as in



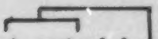
(3) computer user

But even this simple pair offers scope for some interesting variation, (N_{pl} + N), as follows

(4) communications bandwidth

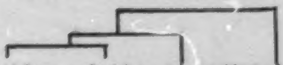
The semantic explanation advanced by Huckin and Olsen (forthcoming: 20-11) to account for plural marking of premodifying nouns is that the qualifier noun points to a diversified set of things; in this case, communications is seen as a diverse array of possible ways or media.

Levi's pattern (1)b appears exemplifed in (5):



(5) job control language

Obviously enough, one N + N combination in (5) above appears as a constituent in the larger structure ((N + N) + N), an indication of the recursive nature of the process resulting in the binary structure. In fact, the binary structure is the nucleus around which more complex strings can be constructed, as attested by our next example, corresponding to Levi's type (1)c:



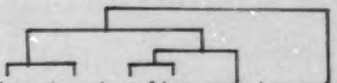
(6) problem solution time distribution

Here the compounding process begins to reach its pragmatic limit since units longer than four elements are harder to find in technical texts. Thus, Huckin and Olsen (1980: 4) report four-noun combinations as the longest compounds occurring in their 1450 word sample from electrical and computer engineering. However, Bartolic (1978: 277) detected 32 instances of structures from four to six nouns long out of a total number of 319 occurences in her corpus from engineering literature. Although the issue of relative frequency must remain undecided for the moment, the fact is that a formidable obstacle to comprehension can appear in the form of the infrequent but complex expression such as

(7) keyboard cathode-ray tube display console

This particular instance illustrates how the binary principle generates a unit out of two elements; the new unit in turn becomes available for further pairing with another element, until stylistic and psychological constraints set an upper limit around the six premodifier mark. But no matter how complex the terminal string, the uppermost dominant node is still N, which implies that the whole phrase still retains "single-word" status that the learner must recognize as such.

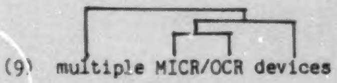
Another property of binary structures is that not all components need to be the result of a first act of compounding. A fairly large number of pairs are not the product of syntactic processes but have been part of the standard vocabulary for quite some time. We see this illustrated in our next example:



(8) time-shared on-line computer networks

The first two pairs, very particularly the second one (on-line), are part of the established lexicon of computer technology not as separate lexical items but as "single, unanalyzed units" (Levi, 1978: 63), as binary elements already processed and available for further combination in very much the same way as standard "off-the-shelf" electronic components are.[2] Another such "ready-made" compound, not apparent as such at first sight, is job control in example (5) above.

Carried to its logical conclusion, this lexicalization leads to whole CN strings, three or more words in length, becoming institutionalized as single words, only to attain ultimate lexicalization in the form of the acronyms so frequent in the English of computer literature. They are now ready to enter into more binary compounding, this time as single words, as seen in the following CN appearing in a technical manual a few paragraphs after the concepts of Magnetic Ink Character Recognition (MICR) and Optical Character Reader/Sorter (OCR) have been introduced.[3]


(9) multiple MICR/OCR devices

Once again the binary pattern becomes apparent in the way the two independent CNs, in their highly compressed acronymic form, have been paired into a single nominal premodifier for the head noun devices, only to form another unit that is ultimately joined to the adjectival premodifier multiple.

What pedagogical advantage can be gained from an awareness of binary structure in CNs? Decoding complex nominals involves a number of problems for the EST learner. Where is the head noun? How many premodifiers are there? What modifies what? Although a knowledge of binary patterns is not the solution to all these, it does provide an answer to the last one. By pointing to the hierarchies existing within the complex nominal compound, the teacher can provide the learners with a concept capable of introducing order into what at first may appear as a mass of incomprehensible language data.

Even more practically, the modified IC analysis in the examples given here can be turned into a simple pedagogical device to help CN decoding, in conjunction with other available pedagogy on the subject (e.g. Trimble and Trimble, 1978: 99, Tomic, 1979: 20-1, Hucking and Olsen, forthcoming: 20-18ff, Williams, 1982: 8-10, etc.). The conventions of simplified IC diagramming can be easily understood and applied by students who have become familiarized with tabulating, diagramming, flow-charting and other forms of visual logic through their technical subjects. What is advocated here is that the EST teacher should take advantage of modes of technological thought to make learners aware of the systematic aspects of technical discourse. The students are being trained in analytical skills; the EST instructor would be well advised to bring those skills to bear upon the decoding of an important feature of technical texts. If this sounds like a defense of old-fashioned grammatical explanation in class, the facts of textual complexity amply justify it.

Moreover, simplified IC diagramming offers the additional bonus that it by-passes the need to resort to the native language of the learners as a means of clarification, an advantage whose value becomes apparent when dealing with multi-lingual EST classes or with students above the beginning level.

NOTES

[1] I am indebted to Jaime Nuñez, formerly of the Language Department, Catholic University at Santiago, for the IC analyses that follow.

[2] Notice how premodifiers involve items other than single nouns, as exemplified so far. The preposition + noun combination is clearly the product of transformations different from N + N compounding, as are the -ed and -ing elements also found in CNs. A study of the relevant processes is beyond the scope of the present paper.

[3] Example from "Considerations for magnetic and Optical Character Readers" (IBM Corporation, n.d.). Actually, the introduction of the two devices in the text is through this sesquipedalian compound:

(10) Magnetic Ink Character Recognition (MICR) and Optical Character Reader/Sorter (OCR) devices.

[4] Acknowledgements are due to Tom Huckin and Leslie Olsen (University of Michigan at Ann Arbor), Francoise Salager (Graduate School of Medicine, Mérida, Venezuela), and Ray Williams (University of Aston in Birmingham) for kindly letting me see their various contributions while still in pre-publication form.

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FORMS AND FUNCTIONS OF THE NOUN PHRASE IN EST

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Background

Research in EST remains a relatively unexplored field so far. Several but not all the problems of language and instruction involved have been studied. Hiramaya-Grant and Sedgwick (1978) denounce a strong tendency in EST to overemphasize the importance of lexical and grammatical items, reflecting the fact that the analyses upon which they are based correspond to a micro level restricted to the llinguistic code. Literature related to reading comprehensionn in EST, in turn, jumps to text analysis at a macro level. Different tasks involved in the reading skill are underscored as essential for the experienced reader. The fact that the latter is able to perform such tasks on the basis of linguistic clues is certainly mentioned, but very seldom are the clues themselves defined, less discussed.

Our contention is that, from a pedagogical viewpoint, a big gap exists between these two levels of analysis. At the intermediate level, linguistic structures normally used as clues to decode written texts call for a detailed description.

Purpose of the Study

This study examines the main characteristics in surface structure of the noun phrase in EST and the relationships between the surface structure and the realization of different sentence and clause elements.

Two main reasons support the importance of studying the NP as an independent linguistic unit. First, NP's are relatively complex strings which can be indeterminately long. This fact, as Plaister (1969), Eskey (1970), Twaddell (1973), and Hitchcock (1978) have noted, usually poses a problem to EST students. They are word-by-word readers and naturally tend to translate into their native language, whereas good comprehension entails reading by structures. As Ewer (1978) and Statman (1980) point out, ideas are presented in sentences which may be separated into smaller meaningful units or sense groups. The capacity to recognize where a sense group begins and ends is essential for meaningful reading. Second, the frequency of NP's in realizing different sentence and clause elements contributes to make reading comprehension more difficult for the learner.

Several research reports in EST (McConochio, 1969; Lackstrom, Selinker and Trimble, 1972, 1973; Selinker and Trimble, 1974; Bartolic, 1978; Hitchcock, 1978; Trimble and Trimble, 1978; Ewer, 1979; Tomic, 1979; Horsella, 1980; Perez and Telha, 1980) touch upon different aspects of the NP, either directly or indirectly. None of them, however, fully describes the general structure of the NP as an independent linguisitc structure.

Approach

This study describes empirically the constituents of the noun phrase in EST and their relationship to grammatical function by accumulation of a data base. Starting with a basic corpus of EST prose, we analyzed and recorded the characteristics relative to the NP form and function as a collection of factual information. We made no attempts to explain relationships or make predictions at this first stage. Our goal was to measure several variable categories simultaneously in a realistic setting.

Grammatical function is understood as the type of element which the NP realizes within a sentence or clause. Following Quirk and Greenbaum (1973), the methodological assumption is that NP's can be subject, object, complement, and/or adverbial. Considering the differences between sentences and clauses as well as the kinds of objects and complements, NP's realize twelve grammatical functions.

The form of the NP concerns its constituent elements. In English grammar, a NP can be described as "an indeterminately long and complex structure having a noun as head" which may be preceeded by premodifiers and/or followed by postmodifiers (Quirk and Greenbaum, 1973: 375-376). The general structure of the English NP can be summarized as:

NP (Premodifiers) Head (Postmodifiers)

Premodifiers (Predeterminer) (Determiner) (Postdeterminer)* (Adjective)*

Head Noun Number

Postmodifiers (Prepositional Phrase)* (Finite Clause) (Non-finite Clause)

where the parentheses indicate optional componenets and the raised asterisks indicate that more than one element belonging in the same class may appear in these positions.

Sample

The target population is practically infinite and, consequently, not only unwieldly but also exacting for sampling. In order to obtain a representative sample, a stratified random procedure was employed. A basic corpus of EST prose at university level was selected from seven subregisters: Mathematics, Biology, Chemistry, Physics, Industrial Engineering, Electrical Engineering, and Business Administration. Three different kinds of writing, either articles, papers, reports, manuals or textbooks, were studied in each subregister. To complete the sampling procedure, the twenty-one texts were examined in order to draw at random a hundred Np's from each. A total sample of 2,100 NP's was thus obtained.

Procedures

The grammatical description of the NP was summarized in a chart designed for clearly differentiating in separate columns all possible individual constituents. All phrases having a noun as head were considered relevant data and entered in a chart with its actual constitutents in the corresponding column. The grammatical functin of each NP was registered simultaneously with its form.

The classification scheme worked reasonably well but several decisions affecting the overall shape of the sample had to be taken as the data collection proceeded. Identical NP's repeated in the same text were entered only once. Conversely, NP's embedded in one componenet of another NP were entered again separately. Conjoined head nouns, equations, and names were entered together and considered as one single component following convention. Number was simplified to singular (unmarked) and plural (marked), with no further distinction of morphemes used as markers.

Compound nouns were entered in the corresponding separate columns. Compound adjectives were computed as single-word adjectives. Adverbs, generally intensifiers, were entered in the adjective column. Adjectives and adjective phrases following the head noun as object complements were registered as non-finite clauses; otherwise, they were regarded as reduced relative clauses.

The NP's sampled were coded according to their constituents. The actual presence of one component was indicated as 1 (2 or more in the case of postdeterminers and adjective); its absence, as 0. Similarly, grammatical function was coded with numbers from 1 to 12. The code numbers of each NP were recorded on diskettes for subsequent processing of the data. Since all phrases invariably include the head, the digit indicating its presence was omitted. Thus, 2,100 strings of numbers of the form 3 0 1 0 0 1 0 0 1 were entered as the data base on file. A computer program written in Basic was run to produce one-way frequency distributions of the 2,100 NP's grouped by grammatical function.

Finding

Seven grammatical functions realized by NP's were identified in the sample: subject in sentence (SS), subject in clause (SC), direct object in sentence (OdS), direct object in clause (OdC), subject complement in sentence (CsS), subject complement in clause (CsC), and object complement in clause (CoC). Within each function, several NP types determined by the presence and/or absence of different components were found. The sum of the raw totals exceeds the theoretically possible combinations of elements in the set ($2^8 = 256$). This difference indicates duplication of the same NP types in the various functions. To account for it, we checked each type occurring in the other six grammatical functions against the types found in the function SS. The computation shows a total of 137 actual types in the sample. Table 1 summarizes the information and illustrates the coincidence of NP types across functions.

Table 1

Coincidence of NP Types in the Seven Functions

	SS	SC	OdS	OdC	CsS	CsC	CoS	Raw Totals
SS	93							93
SC	54	8						62
OdS	54	2	9					65
OdC	66	3	2	11				87
CsS	39	1	1	1	10			52
CsC	18	-	-	-	1	1		20
CoS	3	-	-	-	-	-	-	3
	ACTUAL NP TYPES = 137							382

As stated above, the various NP types can be determined by the presence and/or absence of different constituents. The types marked by a single modifier are only eight. Table 2 shows the frequency of occurence of these types in each function as well as their cumulative frequency in the total sample.

Table 2

Frequency Distribution of NP Types with a Single
Modifier by Grammatical Function

Modifier	SS	SC	OdS	OdC	CsS	CsC	Co	F
PRS	5	3	2	2	0	0	0	12
DET	70	29	22	27	0	1	1	150
POD	1	2	3	1	4	0	0	11
ADJ (1)	28	5	9	11	1	0	0	54
ADJ (2)	9	2	2	5	0	0	0	18
ADJ (3)	1	0	1	0	0	0	0	2
NUM	18	3	6	7	5	0	0	39
FIC	0	0	0	0	0	0	0	0
NFC	1	0	2	2	2	0	0	7
PP	20	5	12	11	2	2	0	52

All the rest of the NP types found in the sample have two or more modifiers of the head noun combined in different ways. Table 3 shows the actual constituents in each of the twenty-one most recurrent NP types found in the sample. In the table, zero indicates absence of the corresponding constituent; one and two, presence and quantity of elements.

Table 3

Actual Constituents of the Most Frequent
NP Types in the Sample

Rank	PRD	DET	POD	ADJ	NUM	FIC	NFC	PP	F
1	0	1	0	0	0	0	0	1	299
2	0	1	0	1	0	0	0	1	154
3	0	1	0	0	0	0	0	0	150
4	0	1	0	1	0	0	0	0	133
5	0	0	0	0	0	0	0	0	104
6	0	0	0	1	1	0	0	0	85
7	0	1	0	0	1	0	0	1	70
8	0	1	0	0	1	0	0	0	62
9	0	0	0	0	1	0	0	1	57
10	0	0	0	1	0	0	0	0	54
11	0	0	0	0	0	0	0	1	52
12	0	1	0	1	1	0	0	1	44
13	0	1	0	1	1	0	0	0	44
14	0	1	0	2	0	0	0	1	42
15	0	0	0	0	1	0	0	0	39
16	0	1	0	0	0	0	1	0	38
17	0	1	0	2	0	0	0	0	37
18	0	0	0	1	1	0	0	1	34
19	0	0	0	2	1	0	0	0	34
20	0	0	0	1	0	0	0	1	26
21	0	1	0	0	0	1	0	0	23

Practically all the combinations of two or more modifiers turn out to be aleatory. This is why the description of the distributional characteristics of individual constituents in all the combinations appearing in the sample constitutes only a rough approximation.

The raw counts on the data processed indicate that predeterminers are not very common in NP premodification. Although there are thirty-two types which include them, the overall F is 123 NP's or 6.42% of the total sample.

Determiners are the most recurrent premodifiers in the sample. Seventy types--including the first four with the highest F--have determiners as constituents. Considering only the twenty-one most frequent types in the sample, NP's with determiners have a cumulative F + 1,096 which is more than 50% of the entire sample.

Premodification of the head noun by postdeterminers is infrequent in the sample. There are 37 types which include post determiners; all of them, however, have very low frequencies. The overall cumulative F is 119 NP's or 5.66% of the sample.

Adjectives are the second most recurrent premodifiers in the NP's sampled. Eighty-seven different types include adjectives as constituents. Their overall cumulative F is 989 NP's, representing 47.09% in the sample. These figures include NP's having more than one adjective as constituents. Twenty-two types which include two adjectives as premodifiers were found in the sample (F = 163 NP's); eleven types with three adjectives (F = 44 NP's); and four types having four adjectives (F = 9 NP's).

Number as a marker does not seem to have much incidence. Only 23 pairs of NP types with different modifiers each are distinguished from one another by number. On the other hand, 59 types in the sample have singular number and 78 types are plural. The overall cumulative frequencies of singular types (F + 1.112), however, outnumbers the plural ones (F + 469).

Postmodification of the head noun by a finite clause is the least frequent in the sample. There is no NP type marked by a finite clause as single modifier. In 27 types the finite clause co-occurs with other modifiers. These types have a cumulative F = 104 NP's which correspond to 4.95% of the total sample.

The frequency of non-finite clauses as postmodifiers in the sample is also low. There are 20 NP types in all which include a non-finite clause. Only one of these types has a frequency that exceeds 1% of the total sample. The cumulative F of the twenty types is 131 NP's or 6.23% in the sample.

Prepositional phrases are the most frequent postmodifiers in the sample. There are 53 types where the prepositional phrase co-occurs with other modifiers, in addition to the type where it appears as single modifier. The overall cumulative F of NP's including prepositional phrases as constituents equals 949, equivalent to 45.19% of the total sample.

The cumulative frequency of each NP type across functions indicates the predominance of certain types over others. Table 4 on page 11 shows the frequency distribution of the twenty-one most recurrent NP types in the sample. These frequencies add up to 1,581 NP's which represent 75.29% of the total sample. The cumulative frequencies in each of the other 116 types range from one to twenty; thus, each represents less than 1% of the total sample. All together they amount to 519 NP's, that is 24.71% of the sample.

Table 4

Frequency Distribution of the Most Recurrent
NP Types by Grammatical Function

Rank	SS	SC	OdS	OdC	CsS	CsC	CoS	F
1	101	20	78	54	37	9	0	299
2	39	15	45	37	13	5	0	154
3	70	29	22	27	0	1	1	150
4	53	23	9	31	13	3	1	133
5	53	18	13	13	5	2	0	104
6	26	9	16	28	3	3	0	85
7	31	9	13	13	3	1	0	70
8	34	9	4	14	1	0	0	62
9	18	5	14	18	1	1	0	57
10	28	5	9	11	1	0	0	54
11	20	5	12	11	2	2	0	52
12	15	1	10	16	2	0	0	44
13	15	11	10	6	0	2	0	44
14	12	1	15	8	4	2	0	48
15	18	3	6	7	5	0	0	39
16	10	2	14	8	3	1	0	38
17	13	3	7	9	2	2	1	37
18	9	0	5	14	3	3	0	34
19	13	7	0	12	0	2	0	34
20	9	1	7	9	0	0	0	26
21	7	0	9	3	4	0	0	23

Conclusions

Although the above results cannot be interpreted as absolute frequencies, they present a generalized picture of the formal characteristics of the NP's sampled.

On the whole, the frequency distributions of the different NP types within each grammatical function follow the same pattern as that of the overall cumulative frequency in the entire sample. With small variations in some types, the same NP forms are the most recurrent in all functions. This fact seems to indicate certain consistency in NP form.

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THE TRANSFER OF COGNATE LEXIS: IN SEARCH OF FACILITATING FACTORS IN EST

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Introduction

Most courses in the universities in Latin-America have as a first priority the ability to read texts fluently in English. Reading in English may present different levels of difficulty to a Spanish speaking student. Conversely, relative similarity in some aspects of English and Spanish may act as a facilitating factor for reading.

In the view of Constrastive Analysis, similaritiy between L_1 and L_2 results in positive transfer, i.e., the learner can easily assimilate those elements that have a functional and semantic correspondence in both languages. Although Contrastive Analysis has been criticized on theoretical grounds for its low predictive value and also because it overlooks important factors for learning such motivation, exposure to the language, etc., the information derived from small scale comparisons can be useful for restricted purposes, for example, for isolating factors that may present difficulty or that may facilitate specific tasks in the reading process. A possible facilitating feature may be found in cognate lexis in English and Spanish.

It is a well-known fact that cognate words exists in all languages as etymological cognates, neologisms and borrowings. The existence of this lexical common feature among languages has motivated Rusiecki (1979: 28-29) to call it "latent bilingualism". He states:

> It is worth looking for all elements of the lexical system of the foreign language that the learner can be expected to find easy to assimilate.

Cognate lexical items have also been incorporated as a method of teaching a foreign language. In the words of Mackey (1966: 155),

> In one method, the cognate method, the learner starts by learning the basic vocabulary made up of words which are similar in form and meaning to those of his own language. These are then immediately used for oral or written expression.

Observational research into the strategies used to arrive at the meaning of cognate lexis has indicated that a variety of techniques are employed (Gonzáles-Smith 1981).

Cognate lexical items have been a matter of interest for language teachers in this part of the world, and useful lists of cognates (Ramirez 1975) as well as of false cognates (Ewer 1958) have been compiled to guide the teacher and the learner in this field.

Table 1

Texts	No. of Total words in reading	Cognates		Non-Cognates	
		Open Set	Closed Set	Open set items	Closed set items
1. Variables and Functions	616	136 (26.50%)	0	139 (22.5%)	314 (51%)
2. Theory of Limits	934	251 (26.9%)	0	211 (22.6%)	472 (50.5%)
3. Probability	884	116 (13.1%)	0	260 (29.4%)	508 (57.5%)
4. Vectors, Velocity, Acceleration	600	196 (32.7%)	0	121 (20.1%)	283 (47.2%)
5. Newton's Laws of Motion, Work Energy and Momentum	1,731	517 (29.9%)	0	370 (21.4%)	844 (48.7%)
6. Motion in a Uniform Field	1,230	207 (16.8%)	0	363 (29.5%)	660 (53.7%)
7. Relations and Functions	1,200	213 (17.8%)	0	226 (18.8%)	761 (63.4%)
8. Writing a Paper	1,900	635 (33.4%)	0	648 (34.1%)	617 (32.5%)
TOTAL	9,095 100%	2,289 25.3%	0 0%	2,338 25.7%	4,459 49.0%

Our own experience, indicates that the ordinary student at the Faculty of Physical and Mathematical Sciences, University of Chile (hereafter the faculty) enquires about the meaning of cognate lexis more often than expected. This might mean that students are not fully aware of the equivalence between a considerable number of English and Spanish words. Objective information is needed to verify whether this impressionistic view corresponds to a more extended behavioral pattern.

In this study, cognate lexical items refer to words that have a graphic similarity in both languages. The underlying assumption is that those lexical litems are semantically and functionally equivalent in English and Spanish. Yet, we do not know to what extent the students can make judgements of semantic and functional equivalence, and one possible way of exploring the student's awareness of lexical similarity in the two languages is by seing how much transfer actually takes place.

The aim of this study, then, is to determine the extent to which the students at the faculty readily recognize and understand cognate items both in isolation and in context. The possibility of establishing a few basic categories of cognates that may be pedagogically viable is also explored.

The study is concerned with the scientific discourse that students at the faculty actually have to read in English during their first three years of study. This study sample comprises 9100 running words taken from 11 different textbooks. (See Table 1). Three tests on recognition and understanding of cognates were designed and applied to a test population of of 331 students.

Methodology

Our study used two approaches: Text analysis followed by an observational stage. The text analysis study is formed by a frequency count and the analysis of the morphosyntactic characteristics of cognate items. This study included the following steps:

1. Analysis of the sample working word by word through each text. Thus the total 9,100 words were first classified into cognates and non-cognates and into open (lexical items) and closed set (prepositions, articles, etc.) items.
2. Study of the morphosyntactic characteristics of cognates in order to make a pragmatic classification. They fell naturally into 6 groups which are detailed on page 10.

The observational phase consisted in designing and applying three tests of increasing complexity, aimed at assessing the students' performance in the recognition and understanding of cognates.

Test 1: Cognate words in zero context. This test was constructed from the list of cognates classified in the six groups detailed on page 10. Of these lists, every 7th word was selected, givng a total of 164.

Test 2: Cognate words and non-cognate words in zero context. This test was constructed from a random sample of words from the study corpus, 200 cognates and non-cognates being presented in a mixed list.

Test 3: Cognates in context. This test was formed by 10 paragraphs taken from the sample corpus having an average length of 50 words each; of these about 20% were cognates. Each paragraph was self-contained or it formed a unit with the preceding or following paragraph.

In test 1 and 2 the students were asked to translate the cognate items and in test 3 to underline them as well. Translation is a straightforward task and it seemed the most useful and economic way of verifying the identification and comprehension of cognates; it would also serve to highlight any incorrect associations, especially in test 3. The well-known assumption underlying test 3 is that context helps the reader to understand unknown words. Conversely, the assumption underlying test 2 is that the linguistic elements that are not test items can act as "distractors". Initially, the possiblilty of presenting the cognates underlined in the paragraphs in test 3 was considered; yet this idea was discarded because when the student is actually reading books in English, he tackles the reading task with no such help. Hence, the test requested the student to first identify the cognate by underlining it and next to provide the correct translation according to its meaning and function in the text, i.e., verbs with the correct Spanish inflection, adjectives with correct gender, etc. Translation ensured that the student was fully capable of comprehending the words in context so that they might be used to gain access to the rest of the sentence.

A comparative study of the results obtained on each test was envisaged as the final step in the analysis of the students' performance to assess the relevance of context.

A few weeks prior to the tests' administration, the population was shown photocopies of the corpus sample in order to ensure that the students had already covered the subject matter in their science subjects and that the concepts were well within their grasp. On the other hand, the students were naive as concerns the transfer mechanism of cognates.

Test 1 was given to 194 students. Due to time constraints, tests 2 and 3 were given to 70 students each.

Text analysis: Results.

The classification of the 9,100 words of the sample into cognate and non-cognate words showed that almost exactly 25% corresponded to cognate items and 75% to non-cognates. (See Table 1).

The further distribution into open and closed set items demonstrated that all cognate words corresponded to the open set, non-cognates were distributed 25% into the open and 49% into the closed set. The importance of the closed set, then can hardly be overemphasized as we shall see later. Furthermore, cognate vs. non-cognate words of the open set appear in a ratio of one to one.

The second step in the text study involved a contrastive analysis of the morphosyntactic characteristic of cognates. The following pragmatic classification resulted:

Group 1: words which added affixes in both English and Spanish
e.g. INcomplete = "INcompleto"

Group 2: words with one initial or final letter missing in the English word
e.g. importanT = "importantE"   special + "Especial"

Group 3: words which correspond to English verbs and the corresponding inflected forms in Spanish
e.g. occur = "ocurrIR" ocure, ocurren, etc.

Group 4: words in English whose final letter is different in Spanish
e.g. curvE = "curvA"

Group 5: words with systematic different spelling in English and Spanish
e.g. perimeTER + perímeTRO

Group 6: words which are identical in both languages
e.g. idea = idea

In a preliminary classification only 3 groups were made, i.e. affixes, verbs and their inflections, and different spelling. However it was felt that for pedagogical purposes it would be more advisable to separate the items having different spellings into three groups, i.e., initial or final letter missing, words whose final letter is different in English and Spanish, and different spelling in general. Once all the cognates in the sample had been classified into the corresponding groups all the repeated words were eliminated and the list was reduced to 746 different cognates. Table 2 details the relative importance of each group as a function of number of cognates.

Table 2

Groups	Number of Cognates
Group 1: affixes	87
Group 2: letter missing	127
Group 3: verbs	157
Group 4: different letter	87
Group 5: spelling	203
Group 6: identical	85
	746

Analysis by groups

The analysis by group gave the following results:

Group 1: Affixes. The majority of the affixes in the sample were suffixes (84.6%). The most frequently encountered suffixes were in decreasing order -ly, -ent, -ence (-ance), -cal, -ity, -ive, -able (-ible). Of these suffixes -ly, -ity, -cal added to a cognate stem are not readily assimilated to Spanish since such affixes have other forms in Spanish.

As for the prefixes, in- and non- have equivalent prefixes in Spanish, e.g., indefinite = "indefinido"; non-scientific = "nocientifico". Conversely, un- can be expressed in several different ways: Unrepresentative = "No representativo"; Unequal = "Desigual"; Unable = "Incapaz". We see that some of the assumed similarities between the 2 languages are weakened since 3 suffixes and 1 important prefix differ in their translation. Thus, the derived words lose some of their potential as items easily associable with Spanish.

Group 2: One (or two) Letter (s) Missing. The letter missing happened to be most frequently a final vowel, e.g., sum = "suma", constant = "constante". Out of 127 words only one added a final consonant; volume = "volumen". Fourteen words added an initial vowel, e.g., structural = "Estructural". In these items the vowel was the letter "e" in front of the clusters "sp", "st", "sc".

Group 3: Verbs. In the study sample all the cognate verbs are regular verbs. Verb forms may have several functions which are made explicit in Spanish by various inflections, e.g.:

a) the stem of the verb in English may correspond to

i. the Spanish infinitive, consider = "considerar"
ii. the present tense, consider = "considero, consideras, consideramos, considerais".
iii. the future (will) consider = "consideraré, etc."
iv. the conditional (would) consider = "consideraría, etc."

b) stem + -ed may correspond in Spanish to

i. a verbal participle, considered = "considerado /a/os/as"
ii. a participial adjective considered = "considerado /a/os/as"
iii. definite passt tense considered = "consideré, etc."
iv. indefinite past tense considered = "consideraba, etc."

c) stem + ing may have as an equivalent in Spanish

   i. a gerund, considering = "considerando"
   ii. a noun, considering = "la consideración"
   iii. a relative phrase, considering = "que considera/ an"

Group 4: Different Final Letter. The difference may consist in

a) change of vowel, e.g., universE = "universO"
b) elimination of consonant, in Spanish, e.g. interesT = "interés"
c) elimination of consonant and change of vowel, e.g., equilibriUM = "equilibriO".

The most productive changes in the corpus corresponded to groups a) followed by group c) and then b).

Group 5: Change in Spelling. The most frequent changes of spelling found in the sample in decreasing order of frequency are as follows:

English	Spanish	Examples	
t	c	posiTion	"posiCión"
double consonant	single consonant	suCCeSSive	"suCeSivo"
q	c	Quotient	"Cuociente"
t	d	OperaTor	"operaDor"
ter	tro	perimeTER	"perímeTRO"
ph	f	sPHere	"esFera"
ous	uo	continOUS	"contínUO"
th	t	THeory	"Teoría"
ity	dad	velociTY	"velociDAD"
q	g	eQual	"iGual"

The analysis of the six groups in the pragmatic classification shows that the two largest groups are group 5 (changes in spelling) and group 3 (verbs). Since the items in these 2 groups include the greatest differences with Spanish, it may be expected that they will present greater difficulty in the experimental tests. This assumption needs to be verified in the light of the results obtained in the experimental tests which form part of the second part of this study.

Observational Phase. Results

The analysis of results shows the effectiveness of the transfer mechanism in three different tests.

Test 1. Cognates in Zero Context. The transfer mechanism operates at 93% for group 6 (identical) followed by 90% for group 4 (different letter), next comes group 2 (letter missing) with 87.6%, then group 5 (spelling) with 83.6%, next group 1 (affixes) with 81.9% and lastly, group 3 (verbs) with 77.1%.

If we examine the results from the point of view of relative difficulty, we find that only six words of the 164 in the list were correctly answered by all the students.

To begin with, only six words of the 164 of the list were correctly translated by all the students. The words are: symbol, increment, equal, possible, total, line. Of the six words, only one corresponds to group 6 (identical). As 20 such words were included in the test, it was expected that a greater number of correct answers would be obtained. One possible interpretation of this unsatisfactory result could be a certain distrust on the part of the students of anything that appears to easy.

Secondly, only seven words were correctly translated by all but one student and five words by all but two students. Although these results are by no means conclusive, it is remarkable that of the 164 cognate words, only 18 were correctly translated by the majority of the students. The correct translations by all the students belong to one or two words from each group; correct answers are scattered in all six groups.

As can be seen in Table 3, the groups presenting comparatively lower scores are group 3 (verbs); group 1 (affixes); and group 5 (change in spelling). These results support the assumption made previously, that these groups would not get the highest scores. Another point to notice is that the percentages for "no-answer" are considerably higher than those for "incorrect answer".

In group 3 (verbs), uninflected stems produced 73% correct answers compared to 79.2% correct answers for inflected verbs. This may imply that inflection presents less difficulty than the bare stem, at least regarding the bare stem vs. -ed forms presented in the test. The importance of the inflection is suggested by the fact that the uninflected form suppose was wrongly translated as the noun "suposicion" by a relatively high proportion of students (38.1%).

Table 3

Test 1: Total Results

Group	Total words No.	Correct Answers	Incorrect Answers	No-Answer
1	1,531	81.9%	4.4%	13.7%
2	1,816	87.6%	0.9%	11.5%
3	2,098	77.1%	6.0%	16.9%
4	1,628	90.0%	2.2%	7.8%
5	2,098	83.6%	3.8%	12.6%
6	1,910	93.0%	0.6%	6.4%

Table 4

Test 2: Summary of Results per Group

Groups	Correct Answer	No Answer	Incorrect Answer
1	86.2%	13.6%	0.2%
2	84.6%	15.2%	0.2%
3	68.9%	31.1%	0.0%
4	90.2%	7.8%	2.0%
5	72.8%	24.9%	2.3%
6	96.4%	2.9%	0.7%

The results of the comparatively simple task of translating cognates from a list seem to confirm the view of cognates as elements facilitating the comprehension of a text in English. However, such a conclusion has to wait for the results of the other two tests for its confirmation.

Test 2: Cognates and Non-Cognates. As concerns the transfer mechanism for this test, we find that the highest score corresponds to group 6 (identical) with 96.4%, followed by group 4 (different letter) with 90.2%, then comes group 1 (affixes) with 86.2%, next is group 2 (letter missing) with 84.6%, followed by group 5 (spelling) with 72.8% and, finally, group 3 (verbs) with 68.9%. As in test 1, verbs appear to be more difficult items for the students, especially as concerns the bare stem. It is worthwhile noting that, as in test 1, the number of "no answer" is much higher than for "incorrect answer".

When we look at the scores obtained by the words in the test, we find that the highest scores correspond to words of three or more syllables, e.g., favorable, variation, different, representative. It seems that the longer word offers more information on which to base a comparison between English and Spanish. The words with the lowest scores in this test are one or two-syllable words, e.g., "manner, vast, unit, case. However the longer word desirable "deseable" was not identified as cognate by any student (0%). Despite the similarity in the number of syllables and identical affix: -able, the surface similarity begins to disappear.

In fact, desirable should be included among those cognates which are not identified as such by students. Some examples of these are list in Table 5.

Table 5

Masked Cognates

Word	Correct Answers	No Answers	Incorrect Answers
seconds	65.7%	31.4%	2.8%
apply	57.1%	42.9%	0 %
displacement	48.6%	51.4%	0 %
contents	40.0%	51.4%	8.6%
measure	34.3%	62.8%	2.9%
increase	31.4%	57.2%	11.4%
integers	25.7%	68.6%	5.7%
measurement	20.0%	80 %	0 %
provided	11.4%	88.6%	0 %
property	11.4%	77.2%	11.4%
term	11.4%	80 %	8.6%
approach	8.6%	85.7%	5.7%
sence	2.9%	97.1%	0 %

Table 6

Test 3: Summary of results per group

Group	Correct Answer	No Answer	Incorrect Answer
1	60.5%	36.8%	2.7%
2	69.0%	30.6%	0.3%
3	39.3%	59.1%	1.6%
4	71.1%	28.6%	0.3%
5	53.4%	45.9%	0.7%
6	86.1%	13.5%	0.4%

Only the four first words in Table 5 were known to about half the students; this may be because they are semitechnical or they appear quite frequently in the books they read in English. However, by the same token, the words integer, measurement, increase, term could have been known. The reason why these words are more difficult may be that more than one change is required to make them similar in both languages, e.g., measurement "meDICION".

The results of this test then, confirm those of test 1, i.e., the more difficult groups are 3 (verbs) and 5 (spelling). Moreover, the overall level of performance is lower in this test as the average score of correct answers is 80.4% compared to 85.4% in test 1.

Test 3: Cognates in Context. The transfer mechanism in this test operates at 86.1% for group 6 (identical), followed by 71.1% for group 4 (different letter), then 69% for group 2 (letter missing), 60.5% for group 1 (affixes), next 53.4% for group 5 (spelling) and finally, 39.3% for group 3 (verbs).

The general tendency in all the groups is for longer words to score higher. The number of "no answer" vs. "incorrect answer", is, as in the two previous tests, much higher. This may be taken to mean that when a student is confronted with a word that he does not perceive as equivalent he abstains from attempting identification and translation; the conclusion is that in tasks as those requested in tests 1, 2, and 3, there is no negative transfer.

The scores obtained by the individual words in this test indicate that the highest scores correspond to words that were repeated several times in the same paragraph or throughout the test, e.g., limit (100%), variable (100%). The 17 words having scores of 90% to 100% were placed either in the paragraph heading or at the beginning of the first sentence in the paragraph. They also scored high when, being placed in the middle of a sentence, they were preceded by a cognate item, e.g., different form, basic concepts. Most importantly, the highest scores correspond to technical terms with which the students need to be absolutely familiar, e.g., vector, function. Furthermore, half of the high scoring words are identical, e.g., rectangular, vertical.

The analysis of the relatively more difficult groups is more extensive for this test because we felt that it was necessary to explore the linguistic environment of the cognate lexical items in more detail in view of the long held assumption that context helps in the recognition of new lexis.

The most difficult groups in this test were groups 3, 5 and 1. In group 3 (verbs) the cognates having the lowest scores correspond to assumming with 0% for "correct answer" and 97.1% for "no answer", and acting with 5.7% for "correct answer" and 94.3% for "no answer". This may mean that the -ing form as a present participle form, e.g., ["assuming the surface of the earth is represented by....." and as a relative clause, e.g., "the force acting on a particle........"] are difficult to transfer. This seems reasonable for -ing replacing a relative clause, as the mechanism does not operate similarly in Spanish, but it does not apply to the present particle which is equivalent in Spanish and is taught early in schools as part of the progressive forms. However, in the quoted example, part of the progressive form has been omitted to form an elliptical construction that takes an obligatory relative pronoun ("que") in Spanish.

As concerns the verbal form listed, the low scores obtained (17.1%) may be due to the fact that the noun list has a corresponding counterpart in Spanish "list", whereas the verb list requires a longer expression to form the verb in Spanish "hacer una lista/poner en una lista". The verbal form vary (14%) occures in a linguistically complex environment. Firstly, it is introduced by the expression is said to, which requires a modification in the Spanish translation "se dice que", changing an L_2 passive construction to an L_1 reflexive one. Then, the y changes its spelling to "i" in Spanish. Secondly, the preposition through in the object of the verb vary is unusual in Spanish that uses the preposition "en". Finally, vary is a short word and length of the word has proved to be an important factor in the recognition of cognates. The verbal form suppose (23%) may be difficult because, being an imperative, it has no personal pronoun to mark it as a verb (as aspect of no equivalence that is noted early by Spanish speakers). Furthermore, this verbal form is linked to the verbal form moves (20%) which is reflexive in Spanish "se mueve". Maybe the concatenation of two difficult forms results in abstaining from answering.

As concerns group 5 (different spelling), we find in the first place, English words which change a double consonant into a single one in Spanish, e.g., manner (34.3%) a different vowel and/or consonant value (30%), member (37%) and number (37%). It is hard to explain why value and member which appear three or four times in the paragraph and are technical terms of high frequency in general should have low scores. In the second place we have words that undergo two changes, i.e., change of spelling plus the addition of a non-cognate affix, e.g., quantity (40%), equality (20%), continuously (28.6%), successively (23%). Successively is in a complex environment. It is preceded by takes on and followed by a series of values and value has already been detected as producing difficulty. Furthermore, this cognate occurs only once in the passage so it might have been overlooked. Lastly, we find a group of words that show very little surface similarity, e.g., career (5.7%) "carrerra", purpose (11.4%) "propósito" and chapter (14.3%) "capitulo". This group we identify as masked cognates because they are quite difficult to transfer, as their low scores indicate.

Concerning group 1 (affixes), in the test sample the most frequently occurring affixes were -ity, -ly and -ance/-ence. Of the five words adding the suffix -ity we find that probability has a high score (91.4%), whereas velocity, which is a very frequent technical word, has 65.7% of correct answers; gravity, also a technical term, has 51.4%. Velocity and gravity occur only once in the texts but they appear in the titles of the paragraphs and this has been, so far, a factor that helps recognition or focuses attention.

The suffix -ly is easy in arbitrarily (82%) and frequently (85%), but it is not so in continuously (28%) and successively (23%).

The suffix -ance/-ence scores 77% in resistance, 34% in occurrence and 25% in significance. However, the sample -as in the cases above is not large enough to suggest any discernible pattern of relative difficulty.

Summing up, the results of the three tests described earlier were analyzed to assess the levels of relative difficulty presented by cognate items according to the students' performance and how the transfer mechanism operates.

The purpose of comparing results is to obtain answers to the following questions:

1. What is the level of performance of the students on each individual test, i.e., do cognate words behave differently on each test?

2. What is the general level of performance of the students in each of the 6 groups into which cognates are classified?

3. Are cognate words in context easier to understand and translate than cognate words in zero context?

The results of the comparision are detailed in the tables that follow.

Table 7

Students' Performance in Tests 1, 2 and 3	
Tests	Correct answers
Only cog	85.4%
Cog/non-cog	80.4%
Context	61.0%

Table 8

Group	only cog	cog/non-cog	context
1	81.9%	86.2%	60.5%
2	87.6%	84.6%	69.0%
3	77.1%	68.9%	39.3%
4	90.0%	90.2%	71.1%
5	83.6%	72.8%	53.4%
6	93.0%	96.4%	86.1%

As can be seen in Table 7, students' performance in the translation of cognates in context is unexpectedly lower than in the other tests if we consider that the value of context in decoding is nearly a professional article of faith. A considerable proportion of words-39% - remain undetected and unprocessed, and those are precisely the words that the students could use to gain understanding of the other parts of the message.

In all three tests, group 6 (identical) has the highest number of correct answers, thus being the easiest group. Group 4 (different letter) ranges second in all tests. On the other hand, group 3 (verbs) has the lowest percentages in all tests and can therefore be considered as the most difficult. This group deserves special attention because of its low ranking particularly, on test 3. Verbs are regarded as being a pivotal element in a sentence as they introduce predication and consequently the new information. It is assumed that context helps to identify the function that a word has; therefore, inflected verbs should be easier to recognize, evenmore so if we consider that test 2, where the students performed better, is based on the same corpus used for test 3. However verbs rank in context considerably lower than verbs in isolation. One possible explanation might be that on test 2 several possible Spanish inflected forms were considered correct whereas on test 3 context imposed restrictions and, only one possible correct translation was accepted.

Conclusions

The linguistic study shows that the open set items and the closed set items are in a proportion of one-to-one in the discourse studied. (See Fig. 1.)

Figure 1

Open Set		Closed Set
Cognate Items	Non-cognate Items	
25%	25%	50%

Of the open set items, half correspond to cognate lexical items. Constituting one quarter of the total discourse, they might be profitably utilized as the stepping stones to gain access to other segments of the text. However, the results of our study show that they are not being utilized with maximum efficiency, and that performance regarding cognate verbs in context is very low (39%). The only exception to the above statement is in those technical terms in the corpus which the students automatically recognize. These are the words that are most strictly regarded as semantically and functionally equivalent in both languages. It might be said that for a science student there is no ambiguity i the complete understanding of a technical term.

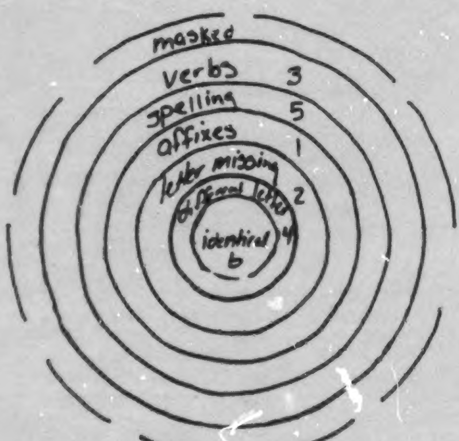
Equivalence could be extended to encompasss cognate lexical items that are not automatically obvious to Spanish-speakers by giving precise information about:

a) affixes that are different in Spanish and that are added to a cognate stem.
b) the various forms of inflection in Spanish as compared to English.
c) the most common changes in spelling.
d) the possibility of adding or changing a final letter in the English word.

The importance of the closed set items, both in quantitative and qualitative terms cannot be overemphasized. The closed set items make up half of the words in the corpus studied and they form the framework upon which the content items are interwoven. We feel that the low performance of cognates in context may be due to the fact that the closed set system was not operating efficiently, i.e., each word in the string was felt as a challenge, the text becoming a puzzle where not even the apparently obvious cognates could be recognized. A desirable prerequisite for understanding a scientific text in English is complete mastery of the closed set items of the language and of the patterns in which words naturally occur. It would not be unwise to ascertain if this mastery really exists by means of a diagnosis test given before the students enter a reading programme at tertiary level.

Lastly, the results in the observational phase indicate that cognicity - if we are permitted the term- operates as a continuum; See fig 2.

Figure 2



It begins at a center, group 6 in Fig. 2, where lexical items are identical with Spanish, and hence easily recognized as such. In the next levels (groups 4 and 2) $L_2 - L_1$ equivalence begins to be diffuse. For groups 1, 5 and 3 equivalence is perceived still less consistently. On the periphery, we find cognate items which have undergone such modification that their surface similarity has vanished.

Thus, we can postulate that cognicity is not a discrete property but it is expressed as a continuum, ranging from complete equivalence to total unfamiliarity as far as the learner is concerned.

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ESP IN SOUTH AMERICA: CHILE, PART II

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SECTION B

IN DEFENCE OF AUTHENTIC LANGUAGE IN EST

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When selecting teaching materials, the EST instructor has two alternatives: choosing pedagogic texts, with the advantage of ready made exercises and linguistic and conceptual accessibility to the students, or authentic ones, with the disadvantages of amount of time spent in text selection and exercise preparation and also of serious obstacles in complex and often idiosyncratic language. Such a choice entails a careful consideration of key factors such as the students' needs and language skills. In the discussion that follows, a rationale will be given for the choice of authentic texts in EST at tertiary level.

Pedagogic texts are those which usually appear in commerically published form and which have either been edited to eliminate lexical, syntactical and stylistic complexities, or have been especially written for teaching. In both cases, the aim is to give the students a gradual training in the language of science in general or in some specific scientific register ("wide angle" and "narrow angle" materials, Ewer and Boys 1981:

87). At first sight, these materials have a great deal to offer the EST instructor: they have already been graded according to criteria such as frequency and difficulty, they have ready-to-use exercises to reinforce grammar and specialized lexis and they facilitate comprehension. The claim is that pedagogic language provides a secure basis for the eventual decoding of unedited, unsimplified, i.e., authentic texts. As Widdowson contends, they guarantee "a pedagogic procedure" whose purpose is "to defer the learner's encounter with what he ultimately will have to deal with until he has been prepared to cope with it" (Widdowson 1979: 167). Pedagogic materials would then be authentic in a peculiar fashion since authenticity, as Widdowson sees it, depends "on a congruence of the language producer's intentions and language receiver's interpretation..." A text, therefore, is authentic if the learners respond to it authentically, that is, if they know "the conventions which would enable them to realize it as authentic" (Widdowson 1979: 166). In this reasoning, there is no advantage in the classroom use of texts chosen from those in the specialized library or bibliography since the linguistic and stylistic complexities of authentic discourse would in fact prevent the students from recovering the writer's intention. The paradox is thus raised that authentic texts would be inauthentic, in Widdowson's view of authenticity.

The fact remains, however, that EST tertiary students are most frequently given reading assignments in English. Thus, there is no time for a gradual preparation to face authenticity. The best time for such preparation is then in the last years of the secondary school, where a pedagogic, non-subject specific EST approach would justify itself. Senior secondary school students, who in their great majority will follow careers related to science, would profit from a broad-angle approach to the discourse of science. The two hundred and eighty or so hours of English instruction in the secondary school would be ideal for the gradual introduction since the students have not yet decided which area of science or technology they are going to choose. Tertiary students, on the other hand, are already working in a specific area and need to be trained in the register of that area, very particularly because the time available for EST instruction may not be more than 90 to 100 hours.

In fact, several other considerations point to the advisability of using authentic over pedagogic materials with EST tertiary students. In the first place, science students, from their very first year of studies, need to consult bibliographies in English. Such is the case for the students of Engineering at the University of Chile, for example, who need to read in English to supplement their classroom training and carry out individual projects (Horzella and Huerta 1979: 6); or for students of computer science in the same faculty, whose assigned bibliographies are highly specialized and are almost entirely in English (Tomic 1979: 16-17). The implication is that if instructors use pedagogic materials, they could find themselves in the uncomfortable position of preparing students to tackle a problem they have already solved with little or no help from the instructors.

In the second place, the assigned bibliographies offer the EST instructor a relevant and readily accessible source from which to select materials. These authentic materials can be graded according to the following criteria: a) lexical, syntactical, conceptual and stylistic complexities, b) recurrence of specific lexical or syntactical problems in a specific type of literature and c) the percentage of type of literature assigned in the bibliographies (percentage of textbooks, manuals or journals being included in them, for example). At the same time, this grading procedure can be reinforced with texts of increasing length and variety of syntactical and lexical problems. In computer science, for instance, the instructor could begin with authentic texts taken from textbooks, in which, according to Tomic, "the writers have made an effort to present concepts in as clear a manner as possible, introducing the terminology in a gradual fashion" (Tomic, 1979: 17). The excerpts could then be lenghthened gradually and the problems to be found in them (the "ing" form, the passive voice, complex noun groups, etc.) be reinforced through exercises progressively.

A third consideration is that there is no reason to believe that authentic materials are inaccessible to, or would not elicit an authentic response from the class since the students are coversant with the conceptual complexities of their specific areas and have the strong motivation of urgent need. As Ewer and Boys assert, "the students are relatively highly motivated as long as they feel that their immediate and future needs in the real world are being met" (Ewer and Boys 1981: 96). No better justification for the relevance of authentic texts can be found than the fact that foreign students in English-speak universities eventually succeed in developing reading and other competencies just from immersing themselves in authentic language experiences. There can be no true acquisition without exposure to real language. It is evident, however, that the process of acquisition would be much more efficient with the systematized guidance of the language teacher.

Lastly, and most important of all, most EST textbooks which have been written so far, lack as Ewer and Boys have proved, a serious language research basis. Their conclusions after examining a representative sample of these texts are highly discouraging:

> The textbooks exercised only a small proportion of the communicative operations commonly used in the language of science and technology, and an even smaller proportion of the language items which are predominantly used to express those operations. In addition, there was no general agreement among the textbooks even as to the operations and notations to be included, let along their forms of linguistic expression. Judged solely on the basis of these deficiencies, then it is obvious that the claim made or implied by all ten textbooks, i.e., that they enable the student to learn the language of science, or of a particular science or group of sciences, is grossly exagerated" (Ewer and Boys 1981: 91)

To end with, and due to the factors explained in the three first points above, plus the fact that pedagogic materials do not offer a reliable alternative to authentic ones, and not even sufficient exercises to compensate for their fundamental waekness (see Ewer and Boys 1981: 95-96), authentic texts seem a feasible, well supported choice.

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IN DEFENSE OF AUTHENTIC TEXTS II

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An important decision that EST practitioners have to make concerns the kind of texts to use in the classroom. Should we use authentic or pedagogical texts?

A useful text, according to Allen and Widdowson (1979: 125), should be one having the potential that permits the learner to realize the interrelation of language and subject matter in acts of communication. In order to obtain such a text, and assuming that EST learners are in possession of a "considerable dormant competence in the manipulation of the language system", these authors would rather compose passages than use authentic texts on the grounds that in this way syntactic and stylistic complexities can be avoided and the valuable communicative features of language highlighted.

In my view, composed texts have several limitations. To begin with, they abound too much in introductory texts about the special subjects, and they tend to emphasize study rather than language skills. Moreover, the texts seem to rest on the premise that what EST learners need is exercises on elementary reasoning in order to develop their reading comprehension. In addition, the actual dormant competence postulated by Allen and Widdowson is not so considerable for an important number of our students, thus a good fraction of teaching time has to be spent in solving problems of syntactic deficiencies and filling in gaps in the vocabulary. What is needed is not so much exercises in logic as attention to the language in a text.

In most cases, it would not seem practical for us, non-native EST practitioners overseas, to compose texts for use in our particular realities. We can, with the help of specialists and native speakers and with plenty of time at our disposal, manage to construct texts. The result will usually consist in providing a non specialist surface view of the special subjects, which already leaves the text some steps away from meeting our learners' needs and the teacher without a base on which to construct exercises tending to cope with important deficiencies occurring in our students. In other words, our texts will have the same limitations found in existing materials based on composed texts.

Since our students need to be faced as soon as possible with this reality, a sensible solution might be to spend our preparation time in selecting authentic texts from a language-teaching pedagogical perspective, and in developing from these texts the tasks that can suit our students. Authentic texts with some editing can serve equally well to show the interrelation language/subject matter, but they can also provide a more natural basis for the development of exercises tending to solve problems at sentence level. For example, provided a concentration of relevant paragraphs is made, a series of tasks can be developed on the use of intensifiers and lexical items concerning taste, texture and colour utilizing the description section in the monographs of the British and American Pharmacopeias.

Finally, authentic texts are also better suited than composed texts if we want our students to start making early use of contextual guessing, which seems to be an important quality for successive language learning (Reiss, 1983: 4).

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THE PREPARATION OF BILINGUAL GLOSSARIES AND DICTIONARIES IN EST

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Purpose and Scope

As is well known, the majority of the items in technical bibliographies are in English and problems arise when the foreigner must study these sources. For instance, ordinary words acquire a new meaning in a technical context, e.g. in the area of Computer Science the word bug-small insect, -becomes "error". Compile-collect and arrange information -becomes "translated into machine language". Moreover, new words are coined to satisfy new needs, e.g. byte, whose origin is "bit" (in turn an abbreviation of "binary digit") means a certain number or combination of bits.

If you happen to overhear a conversation between non-English speaking experts, you may notice that they will use many English terms you do not know because it is often easier and faster to use an English word known to the parties involved than to express the same idea with many words in the vernacular. The most important reason is often the non-existence of an exact equivalent in the language being used, especially in a new discipline such as Computer Science.

In view of this problem the preparation of specialized glossaries and dictionaries has become of fundamental importance in many parts of the world. Good technical dictionaries and glossaries are very scarce, and when available, they have disadvantages. To mention only a few, they are monolingual, i.e., the entry is defined in English, which constitutes no solution at all to our problem. Secondly, those that are bilingual present the equivalent in the vernacular but there may be regional variations depending on where the work has been published.

Here I will report on the preparation of two works of this nature: an "English-Spanish Glossary of Fundamental Words Most-Commonly Used in Computer Science" and an "English-Spanish Dictionary of Technical Words Used in Electric and Electronic Instruments". My main purpose has been to find the exact equivalents in Spanish in an attempt to help standardize technical words.

Corpus

The corpus used for the Computer Science Glossary consisted of the textbooks and manuals most commonly used by instructors and students in this area (approximately 700,000 running words). For the Instruments Dictionary, I used the catalogs and manuals of the corresponding instruments and pieces of equipment in the area of Electricity and Electronics (approximately 400,000 running words). The Glossary contains about 1,200 words and it covers all the technical words appearing in my own "English for Programmers" published by the Department of Humanistic Studies, University of Chile. The Instruments Dictionary has 6,000 entries.

Method

A card was prepared for each entry. The card contains the English word at the top; at the bottom you find the Spanish equivalent; at the bottom on the left there is an abbreviated code I devised indicating the source from which the entry was taken. (Name of the book, author, edition, page). Once I had selected the word, I tried to find its equivalent in Spanish with senior students in the areas concerned. Later all the cards were verified and corrected where necessary with experts in the field. We worked as a team for an average of four hours a week during three years to revise approximately 8,000 cards. The Glossary of Computer Science was put on magnetic tape using an IBM Computer. In this way, corrections, additions or deletions can be made in a matter of seconds, and a new, up-date copy can be obtained in a few minutes.

Presentation of the Material

All single entries (one word) are listed in alphabetical order. However, nominal compounds-one of the most important features of technical English-present a problem. Should they be presented in alphabetical order according to the first or second, or third, or even fourth component? To facilitate the task of looking up words in the dictionary, I have devised the following method: if the entry consists of two words, it is presented twice-first, according to the alphabetical position of the first element, then in the section corresponding to the second words, e.g., buffer amplifier appears first under section A Amplifier, buffer with the corresponding translation; it then appears under section B Buffer amplifier with the corresponding translation. The same is done with compounds formed by three or more words. All this involves making subclassifications by strict alphabetical order of all the components, e.g., the entry operation appears as follows:

Operation	Operacion
Duty operation	Alphabetized with main entry
Floating operation	in second position under O.
Switching operation	

Frequency diversity operation	Id. in third position
Talk-through operation	
External triggering-sweeping operation	Id. in fourth position

Efforts have been made with the assistance of experts to explore and list all the possible combinations of words from a conceptual point-of-view. An example will make this clear: suppose a nominal compound is formed by three elements, e.g. *voltage measuring range*. This combination itself represents a very specific technical concept. But in some instances it is possible to combine its elements to represent other concepts. In this example we can combine the elements getting *measuring range* and *voltage range*, the only way to be sure that these combination are correct -in the sense that they correspond to existing concepts -is by means of interdisciplinary work carried out by linguists and the science experts in the fields concerned. The 3,000 words I originally selected for inclusion in the dictionary have come up to 6,000 entries after incorporating all possible combinations. We can see that the introduction of nominal compounds has doubled the number of entries in the dictionary.

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SECTION C

THE TEACHING OF ESP IN NORTHERN CHILE

Francisco E. Díaz
Department of Pedagogy, Universidad del Norte, Antofagasta

The Universidad del Norte at Antofagasta is located in a desert by the sea. This geographical environment determines the main lines of action followed at the university, namely academic activities related to the research and explotation of the desert and ocean natural resources; thus, the two main lines of academic work are aimed at the training of professionals working in the areas of:

a) Mineral resources: their survey, explotation, and processing;
b) Fisheries and marine resources: their catching, processing and culture;
c) Non-traditional energetic resources such as solar energy and aeolian energy; and
d) Archeology, specifically in the Atacama Desert.

The ESP Section of the Department of Pedagogy is in charge of providing the various careers of the university with courses mainly geared to the development of reading comprehension.

The ESP activities at the Universidad del Norte started in 1969, when a branch of the Department was created for the specific purpose of providing students with a whole program of ESP courses. The problem of reading efficiently in a foreign language became evident when surveys in different areas showed that a high percentage of the available bibliography was written in foreign languages, mainly English.

Thus, in some fields such as Electronics, Geology, Fisheries Technology, Metallurgy, and Computer Science, the percentage of bibliographical sources in English was as high as 90%.

The ESP Program includes courses for the following careers: Geology, Metallurgy, Fisheries Technology, Electronics, Civil Engineering, Architecture, Mathematics and Physics, Computer Science, Chemical Engineering, and Commercial Engineering.

The Program extends over two-semesters, with a total of 96 hours of instruction.

Due to the lack of command of English on the part of the students, as attested by several placement and performance tests, the first semester is devoted to training in the development of basic reading skills in the language of science and technology. Thus, the first semester includes Idea-Following exercises, Instructional English, and short basic scientific English texts.

Specialized reading texts are dealt with during the second semester and are the core of each teaching unit, being supplemented by reading comprehension exercises of increasing complexity.

As for teaching materials, they are of two different types: a) Textbooks published abroad for dealing with specific needs of various professions, such as the "English for Careers Series" published by Regents, and b) Textbooks designed and produced specifically to meet the requirements of our students at this university.

It is worth mentioning that the ESP Section designs its own teaching materials. About seven years ago, it was decided to follow this course so as to meet the specific needs of our students.

This ESP Section established a course of action aimed a producing a complete series of teaching materials in the form of "workbooks", so as to enable the students to work with materials as nexpensively as possible. So far, the following workbooks have been produced:

1. "Idea-Following Exercises"
2. "A Reading Course for Students of Fisheries Technology"
3. "A Reading Course for Students of Metallurgy"
4. "A Reading Course for Students of Mathematics and Physics"
5. "A Reading Course for Students of Chemical Engineering"
6. "A Reading Course for Students of Geology"

We intend to design and produce workbooks for the following careers in the near future:

- "Computer Science"
- "Architecture", and
- "Civil Engineering".

All the workbooks have been produced after studies conducted for one or two years to detect the student's EST needs and their competence in English. A great deal of discourse analysis has gone into preparing the workbooks. In each case, the valuable assistance of the specialists in the field has been available in order to ensure the relevance of the teaching materials produced.

Each workbook has the following format:

1. Introductory Units aimed at detecting the topic, finding the main and supporting ideas, and transferring information from a text to a diagram, table, etc. and viceversa;

2. Main Units which make up the core of the reading course, requiring a more extensive treatment, and which are aimed at the development of further reading skills, such as understanding relationships between paragraphs, detecting clues that lead to a better insight of the author's train of thoughts, recognizing and applying definitions, classifications, comparisons, exemplification, descriptions of processes and/or pieces of equipment, etc;

3. Supplementary Units intended to reinforce the various reading skills developed throughout the previous units.

4. Appendices to be used as reference material: diagrams, tables, glossaries, and maps;

5. A Basic Dictionary, including the specialized lexis in the units as well as the most common vocabulary found in the sources that the students are frequently asked to read;

The workbooks so far have been tested in class for two or three years and the results obtained have been satisifactory. Nevertheless, they are under constant revision in order to keep them up-to-date.

ESP TEACHING AT UNIVERSIDAD DE LA SERENA

Jorge T. Olivares
Department of Arts and Letter, Universidad de La Serena

The Universidad de La Serena is located in the Fourth Region in Chile. The region is a zone of transition, partly agricultural and partly desert. The main activities are agriculture, fishing and mining.

The University offers careers to satisfy the needs of regional development. There are three major schools: Engineering, Humanities and Sciences. English has become important because of the large number of books in English at the University library and also because of the foreign companies operating in the Region.

ESP is compulsory for the students in Civil, Mechanical and Mining Engineering and also for Food and Chemistry Technologists. Teacher trainees in Biology, Mathematics, Physics, Science and Chemistry must also meet this requirement. The ESP course stands over two semesters with two 90-minute sessions per week, adding up to approximately 100 hours of instruction. The purpose is to enable the students to develop, within the time constraints, the ability to read specialized texts. The materials are locally prepared and distributed in mimeographed form. Mostly, they are teacher-adapted materials for the first semester, authentic texts being used in the following stage.

Teaching strategies include labelling and production of diagrams and the completion of flow-charts and tables, in addition to more traditional techniques. Reading assignments in class are frequently conducted through group work.

The ESP program started in 1972, having gone through various versions in response to changes in local conditions.

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THE READING SKILL AND ESP FOCUS IN THE SECONDARY SCHOOLS

Liliana Baltra
Center for In-Service Training and Educational Research, Ministry of Education

The development of reading skills has been the main objective of the third and fourth years of ELT in the Chilean secondary school systems for at least twenty years, with an emphasis on oral skills during the initial years. Unfortunately, this rewarding experience is often felt as a frustrating task by teachers and students alike. Perhaps the main reason for this situation has been the influence of the audio-lingual approach assigning a discrete third position to this skill and advising teachers not to present the written form of anything which has not been heard or spoken before. Another important reason for this is the teachers' lack of an adequate methodology to motivate students in the reading task. And last but not least, the lack of appropriate textbooks using an ESP approach with topics aiming at adolescents' interest and needs and at a reasonable price for Latin-America.

Materials used in most secondary schools today are strongly structuralist in nature. A typical passage integrates the grammar in a passage of some degree of difficulty -to describe them in textbook writers' terminology -accompanied by a long series of exercises ranging from direct question on the information contained in the passage, to "drill" type exercises practising individual structure. So, an estimated 90% of the class time supposedly devoted to reading comprehension is being spent on study of revision of the language system rather than on the development of reading skills and techniques.

However, some efforts have been made to improve the situation. In 1976 a group of teachers and teacher-trainers from the Centre for In-Service Training (CPEIP), the University of Chile, and the British Council English Language Officer got together to plan and implement a reading course in English for Chilean secondary school students (1). The main reason for planning this was the general dissatisifaction with the performance of school leavers, voiced by university English departments and other departments where the ability to read in English is required.

So, the first task for the group was the selection of topics to include in the experience. A specially prepared questionnaire was sent to different high schools and the answers given by 400 students were considered in the final selection of reading texts and units. The materials thus produced were experimentally tried out in 15 secondary schools both in the capital city and in some provinces.

In order to change the teachers' attitude towards reading and the relevant methodology, in-service training courses and several workshops were offered to all the teachers participating in the project.

The main aim of the reading experience was to avoid the teaching of grammatical forms via the written text, consequently we did not have to struggle with a pre-determined grammatical inventory of structures which we had to weave into the reading selections in order to illustrate and practise them. On the other hand, we found that certain language forms occurred quite regularly in association with language functions so we devised exercises which point out these regularities. Usually these exercises were fairly undemanding, and we assumed that the part of the study-cycle associated with them would be readily and quickly completed by the majority of students, thus providing them with the opportunity of reading texts thoroughly several times without getting bored, becuase they were looking for different things each time.

It must be emphasized however, that we were not dealing with authentic texts in this project. The aim was mainly to motivate the students to read with attention and interest and to accusomtom them to the various types of discourse structure which they will meet in authentic form during their university ESP courses.

As a result of this experience the official English syllabus for the secondary schools includes the reading of different types of texts as one of the top priorities. Thus, we present a number of specific objectives which permeate throughout the four years of secondary school and from which several activities can be performed either in English or Spanish to develop reading comprehension, e.g., identify the topic of the reading selection by selecting from a given list or by providing the title in L_1; recognize the main idea and supporting details underlining main ideas with one colour and supportin details with a different colour; identify anaphoric devices; identify opposition or contrast; predict future consequences and outcomes, etc. (2).

A number of seminars have been offered during 1982 and 1983 to prepare teachers for these challenging tasks. At the same time, several articles have been prepared and published in the national journals and many others from foreign publications have been reproduced and circulated in these seminars. It is worth mentioning here that the participants come from different regions of the country and that they will have the responsibility of conveying the new reading techniques to their colleagues.

The structure of the school curriculum allows for a certain flexibility. During their last two years of schooling, students may choose three extra hours of English in order to develop or reinforce different aspects of the language. If students are interested in listening and speaking, they may work in the language library or in class with a tape recorder. Alternatively, they may continue with the development of comprehension of scientific, commercial or technological texts either for student purposes at the universities or to comply with job requirements when leaving school.

Consequently, with three to four hours of ELT per week during four years plus three hours of English as an elective in the final two years, we trust teachers and students will be able to fulfill our main linguistic objective: reading different types of written discourse as a source of occupational and personal growth.

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ESP IN A PRIVATE ENLGISH-MEDIUM HIGH SCHOOL. AN INTERIM REPORT.

Donald MacAulay
The Grange Shool

BACKGROUND

Due to a change in the school curriculum taking place in 1982, a system of optional additional subjects were offered to pupils in 3rd Medio, constituting a 2 year course of study. Among those subjects was English, being 4 hours per week in addition to the normal compulsory 5 hours of English taken by all pupils.

In 1982, registration allowed the following classes to go into operation: English for Business (2 classes, each of 17 pupils), English for Engineering (1 class, 17 pupils), English for Medicine (1 class, 21 pupils).

At the present time (July 1983) these pupils are half through the 2nd trimester of the final year of the course.

In 1983 a similar choice was offered to pupils entering the 3rd year, but numbers were fewer, only around 30 pupils opting for extra English. English for Business (20 pupils), English for Engineering (5 pupils), English for Medicine (5 pupils).

As it was not possible to run classes with 5 pupils, it was decided on an ESP skills based course, gradually introducing modules of the 3 areas outlined above. At the present time, this course is midway through the 2nd semester of the 1st year of the course.

EVALUATION

A. In General the courses begun in 1982 have been successful. The main problems encountered were as follows:

1. Finding suitable coursebooks.
   The problem of a coursebook was a difficult one. Firstly, it had to be borne in mind that the level of English of students entering the courses varied considerably. In the compulsory English classes, pupils are set, and wide variations in level between classes existed, but not within classes. In the optional, we had pupils whose English ranged from post-elementary to native speaker. The problem was most acute in Engineering. Most ESP courses assume the student either to be a beginer or advanced in terms of English, and many books were inspected, before a final choice was made.

2. Pupil expectation of the course being somewhat different to the course offered.
   What the pupils wanted in an ESP course varied considerably. This problem became acute in Business, where some wanted Secretarial English, others Managerial English, some General Office Practice, and others Banking. Eventually a compromise solution of a little of each was reached. In Medicine, less difficulty was encountered, although prospective vets and dentists were slightly put out at times. In Engineering, a general Science course was developed, but again failed to be specific for certain pupils. A syllbus for each area is being developed, and should be ready by the end of 1983.

B. The course begun in 1983 gave much more difficulty. Because of the lack of numbers, 2 classes were set up according to the standard of the students English and both groups are following a skills course based on the Oxford Reading and thinking Series. Many students complained this was not what they wanted. At this time modules of Business, Medicine and Science are being fed into the course during 2 of the 4 weekly hours: some pupils are therefore, studying material at times which they rightly feel is not relevant to their wishes. An attempt will be made later this year to have the classes working more in specialized groups with emphasis on research into their interest. This course has not been fully successful and it remains to be seen whether it can be improved.

CONCLUSIONS

There is no doubt that ESP at school level present problems. Apart from textbook and teacher materials, teachers are not keep to each ESP, which they see as a specialized skill requiring knowledge of the particular branch of ESP involved. The problem of class size is also a real one, preventing solution to some of the pupils complaints.

It has been proved an interesting addition to the English timetable, and has given us much to think about. There are many problems to be solved before ESP becomes a fully integrated part of the English Teaching programme at The Grange.

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INTRODUCING ESP AT A TEACHER-TRAINING COLLEGE

Odette Boys
The British Institute, Teacher Training College, Santiago

Background

The growing importance that the subject of teacher training for ESP has been witnessing in the literature recently has helped to highlight the pioneering efforts done by Ewer in Chile (see The ESP Journal, 2, 1, 1983). Unfortunately, part of this valuable work was being temporarily discontinued here as no systematic ESP teacher-training was being done. To overcome this state of affairs, another effort is now being made to introduce ESP at a newly-created teacher-training college. A description of the original and contents of such a course is given in the following paragraphs.

ESP at a Teacher-Training College

The main aim of the British Institute, Teacher Training College at Santiago, Chile, is to train TEFL. This is done through a four-year long programme including language-related and pedagogic courses where ESP forms part of the regular and obligatory programme of studies. Interestingly, the importance of ESP was appreciated by the planning committee as from the very earliest stages when the general curriculum was taking shape. No doubt several foreign and local factors came into plan in creating this unusually favorable attitude towards ESP. Amongst the foreign ones, was the undisputed growing importance that ESP has been experiencing worldwide, and amongst the local ones, the country's long and know tradition in ESP and good results obtained with teacher training in the past. Both helped immensely towards the establishment of ESP on a permanent basis in the curriculum. In the TEFL programme concerned, ESP forms part of the four-year long obligatory English language course. It is assigned just under 10% of the total time, an amount which is divded into two mutually-supportive courses which are given in the second and fourth years respectively. Regarding their syllabus, the first one concentrates almost exclusively on the linguistic angle of the registers concerned (in this particular case EST) whereas the second is wider in scope and will be addressed more specifically towards training ESP teachers. To justify this seemingly arbitrary division this TEFL programme's unusual double purpose must be considered. Unlike its counterparts in the country, it grants, in addition to the TEFL degree, a diploma as 'language specialist' on successful completion of the second year of studies. This means that during the first two years, English language classes must cater simultaneously for the needs of both types of students, i.e., language specialists and TELF. Whereas the job market for the latter group is fairly predictable (secondary, industrial, technical schools, language institutes and universities and/or institutes of higher learning), that for the former still remains unknown, though presumably will be concerned with short term careers where English is mainly used for vocational purposes, e.g. bilingual secretaries. The syllabus adopted for this dual-purpose ESP language course, which called for a careful preparation, is here described in detail.

Steps in Designing the ESP Syllabus

The approach to syllabus design included several interlocking stages in an attempt to maximize course efficiency. Of these, some represent fairly standard practice whereas others may be considered to depart quite significantly. They were as follows.

As a first stage, an attempt was made to determine the students' language needs as accurately as possible. The ideal situation of carrying out a needs study using the traditional questionnaire/interview techniques with the students concerned, was in this particular case temporarily abandoned. The ESP course instructors' belief in the doubtful reliability to be derived from data thus provided by first year students who are unaware of their later professional language needs led to this determination. Instead, the results of the eight needs surveys done in the country to date which give national trends for English language use were brought into consideration as providing sufficient and more reliable data. Briefly stated, results of these language surveys invarible show an almost equal need for both EST and EVP at university and community levels in this EFL country.

In the second stage, English language samples of the activities that needed to be carried out more frquently in English as indicted by these needs surveys were collected with a view to their later analysis. In general, collecting such language samples wasn't at all difficult given the ready availability of material for the more frequent activities concerned, e.g., reading the professional literature. Parallel to this language-sample collecting process, a search through the ESP research literature was undertaken to find out if a linguistic analysis of the text types concerned had already been carried out in Chile or abraod. Fortunately enough, it soon became apparent that such an analysis had already been successfully attempted by several well-known researchers with their results being easily accessible to the course instructors. Having these results at hand, it was considered totally unncessary to repeat this essential task again. In this way, the language content of the course was determined, hopefully with greater accuracy than could have been achieved otherwise. In passing, precious time was saved and an unnecessary duplication of research avoided.

In the third stage, the important and lengthy process of matching the students' language requirements to exisiting didactic materials and appropriate methodology was attempted. In view of the growing number of published ESP textbooks now available and the course instructors' admitted inability to produce materials in the desired quality and quantity needed, a preference for using published materials was established from the outset. However, to make as efficient use as possible of available textbooks, it was first necessary to analyze their linguistic content versus the students' language requirements. A detailed evaluation of several non-subject specific ESP textbooks showed important language omissions in most of the textbooks analyzed. Although the use of subject-specific ESP textbooks was initially considered, it was soon discontinued as languge and concept-wise these were undoubtedly beyond the scope of the course. In view of this double unfortunate situation, textbooks use has been necessarily supplemented with local adaptation and production. This is a slow and lengthy process now taking place on a permanent basis but which will hopefully lead to a more comprehensive coverage of the students' language needs in future versions of the course.

Finally, the materials so far collected and produced are being arranged for class presentation. The rationale followed has been to go from the more simple and frequently used language material to the more complex and less frequent, an approach which is proving to more difficult than anticipated initially.

Summing up, these then have been the steps followed in preparing this ESP syllabus. Some, as stated, may be considered traditional and fairly standard practice. Unusual, however, may be the heavy emphasis placed on making use of available research data and existing resources, particularly as regards needs surveys, linguistic research and didactic materials. As can be appreciated, the underlying principle has been one of finding out first what was available and only then, if this initial search proved totally inadequate for the purposes concerned, carrying out the necessary research or materials production. The syllabus which resulted from this approach is now given in the annex which follows.

Annex: The ESP Syllabus

Total No. of hours: 60

Location of Course within Curriculum: Third Semester

Aim: The aim of the course is to introduce students to the language of some of the main types of ESP actually needed in the country. Although the surveys done indicate the dual need for EST and EVP (English for Vocational Purposes), preference in the course is given to EST because a) it is more important in terms of overall numbers, b) its main linguistic features are already known as a result of linguistic research, and c) it seems that several of its main notions (e.g. time, cause and result, etc.) overlap with those of EVP.

Language Content: To determine the language content of the course, i.e. of the EST register, use has been made of the results of linguistic research accessible in Chile to date. These include: (Zettersten, 1969; Ewer and Latorre, 1969; Huddleston et.al., 1971; Gopnik, 1972; Roe, 1977; Lee Kok Cheong, 1978; Robinett, 1980; Sager et.al., 1981; Ewer, 1981). From the standpoint that these studies sustain and which is most succintly and convincingly expressed by Ewer that "the EST register is predominantly made up of a nucleus language common to all sciences, irrespective of subject, and on which the specialized vocabularies are superimposed" (Ewer, 1979: 30), such a useful core-language forms the backbone of the course. Additional reasons for presenting and exercising this nucleus-language result from knowing that it is not taught systematically through the ordinary "general"-English textbook the students were exposed to either at the secondary school or, more recently, the language-related courses at the training college. For practical teaching purposes, the language material making up this nucleus language (whether considered from the structural/frequency-range count perspective or the more recent notional angle) is provided in a set of documents, copies of which are given to the students. These are listed as follows: 1) Bilingual dictionary of formal EST; 2) Bilingual list of main structural words and phrases used in EST; 3) Main affixes (prefixes and suffixes) used in EST; 4) Index of main structures used in EST; 5) Bilingual list of main items used in the English of Instructions; 6) Main microacts (notions/functions) and their exponents (indicators) used in formal EST.

Note: Though the specialized vocabularies of the different specialities are an undisputed and important component of the EST register, conscious exposure to these vocabularies will, as far as possible, be restricted to the minimum. This approach is adopted so as to minimize developing amongst the humanistic-oriented students an unwanted negative reaction towards science and technology.

Classes: All classes are of a practical nature in an attempt to present, learn and exercise the language of formal EST through communicative situations in the register concerned. In conjunction with this, and if time permits, the teaching methods employed - only in circumstances where these differ from those of traditional ELT methodology, will be brought to the students' attention, demonstrated, and where possible, student-exercised as well.

Textbooks/Didactic Materials: Commercially-produced, non-subject specific ESP textbooks are used in the course. Some of the units chosen are supplemented with locally-produced and adapted materials taken from a wide range of different sources. The following textbooks (having either a structural or notional approach) will be in use: SCI-TECH, S. Abrams. K. Drobnic, M. Morray, ELS Publications, 1981; Study English for Science, A.R. Bolitho and P.L. Sandler, Longman, 1980; Nucleus, General Science, M. Bates and T. Dudley-Evans, Longman, 1976; Writing Scientific English, J. Swales, Nelson, 1971; A Course in Basic Scientific English, J.R. Ewer and G. Latorre, Longman, 1969.

Note: Although the number of ESP textbooks has increased considerably over the last few years with several specialities and particular skills (e.g. "study skills") being well catered for at present, we still lack an ESP textbook designed specifically to teach teacher-trainees systematically and from the very beginning the main linguistic features of a given ESP register (e.g. EST). While this unfortunate situation persists and is simultaneously accompanied, as is the case in Chile at least, by the ESP course instructors' inability to produce didactic materials in the amount, quality and quantity actually required for real learning to take place, non-subject-specific ESP textbooks will continue to be used.

Reading: a) a small number of short and simplified books giving a broad introduction to various areas of science and technology are read during the first half of the semester. Titles include the following: Great Ideas, M. Ardiff and E. Seaward, Newbury; Surprises of Nature, C. West, Cassell; Tomorrow's World, C. Riche, Cassell; Inventions, R. Border, Cassell; Tomorrow's World, C. Riche, Cassell; Inventions, R. Border, Cassell; Computers, L. Jones, Longman; Who did it first?, Longman.

b) during the second half of the semester, students read an unabridged book and/or collection of authentic articles dealing again with topics of general science and technology. Titles include the following: Science and Technology: a reader, E. Lander, Newbury, 1983; Science '82; Science '83.

Recordings: A small number of cassettes/tapes are available for student use during the course. Recorded material is of two kinds: a) to reinforce language work based on textbooks and materials in use, and b) to supplement the readings dealing with general topics of science and technology in the form of lectures, seminars, discussions and interviews.

Films/Videos: If time permits, it is hoped to arrange the showing of films/videos related to science and technology.

Evaluations: Frequent short tests are held in class and one or two main tests held during the course of the semester.

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FROM THE GUEST EDITOR

This issue dedicated to Colombia includes several aspects of the development of ESP in the last decade. With the exception of work on the Reading and Thinking in English materials which started as early as 1974, we can date the origin of full-scale ESP in Colombia at the First Latin American ESP Conference which was held at Paipa in 1977. This was a crucial milestone for English Teaching professionals in the country, as the communicative approach and its implications opened up a series of possibilities for revitalizing the profession. The expansion of this new way of looking at Language teaching pervaded not only Service courses at the University, but also Linguistics courses in Teacher Training programs and even carried its influence to the restructuring of official English curricula in Secondary Schools. Language teaching became more needs-oriented, more meaningful, more relevant, a more demanding and also more rewarding activity.

We hope that the articles included in this issue will somehow reflect the general interest raised by the upsurge of ESP and, at the same time the diversity in the interpretation of principles, leading to quite different approaches to course design and materials production.

The first article presents a general view of ESP in Colombia, with emphasis on trends and future developments. A research report follows on the work at Universidad de los Andes, pioneers of ESP in Colombia and originators of the RTE series.

More recent developments leading to the design of team teaching projects are exemplified by the report on work carried out at Universidad del Valle, and two more reports on materials production are included to show the diversity of criteria with which similar situations are handled and the variety of solutions arrived at.

Although only a few Universities are represented here, it must be pointed out that most Institutions at tertiary level in the country are involved in some kind of course design or materials production for ESP. Published ESP textbooks are widely used by are usually complemented by locally produced materials. Lack of space and difficulties in obtaining samples of materials prevent us from including a wide representation of these activities.

ESP IN COLOMBIA: AN OVERVIEW

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For the past 4-1/2 years I have worked as Adviser in Service English to Colombian Universities, a privileged position which has given me the opportunity to survey the Colombia ESP scene and become involved with various ESP programs with a greater or lesser degree of intimacy.

The situation in Colombia may be presented as a series of contrasts. There are similarities with other Latin American countries - see the special issue of the newsletter on Chile - but also features peculiar to Colombia. By way of general background, it may be noted that Colombia had relatively little immigration from Europe, compared with Argentina, Chile and Brazil for example, and that although Bogotá as the capital and largest city is the most important center of activity, other cities such as Barranquilla, Cali and Medellín have developed as important and largely independent centers in their own right; the geography of Colombia makes communication difficult. The universities in general are not wealthy and may be restricted in physical resources.

Most ESP courses take place within the universities. There are no "Culturas" with the traditions of Mexico or Chile, for example, and apart from large operations by the Centros Colombo-Americano in a number of cities, the private sector is small, and with few exceptions, traditionally oriented. Secretarial courses are probably the commonest SP courses; some others are run for the tourist industry, for business people, and for people, particularly students, intending to visit English speaking countries. All in all these represent a small proportion of English courses.

The university picture is much more flourishing. EAP courses in reading comprehension account for almost all the SP. Although there is a considerable amount of scientific and technical literature available in Spanish (some of it translated from English), there is a time-lag in the making of any translation, and much specialized material in scientific journals is never translated anyway. Consequently, the public universities and larger private ones have Service English for most university programs, and because this is a teching rather than a lecturing operation, there is generally a ceiling imposed on class size, and so a large number of teachers is involved.

The programs themselves vary from one to four semesters in duration, with weekly intensities of 3-5 hours. The decision on duration ultimately rests with the various university departments, although the English departments may also put forward minimum conditions for a course, as at the Universidad del Valle, where any department requesting English has to agree to a minimum of two semesters with a weekly intensity of five hours. The duration is not necessarily determined by the general entry level of the students.

There is some variation in the design of the courses in different institutions. Variables are i) whether the course pays any attention to skills other than reading, ii) the degree of subject - specificity (usually a response to outside constraints). iii) whether materials consist of published courses or are homemade; overall my impression is that the proportion of published courses to homemade is about 50:50. The range of skills runs from reading only, with Spanish as the language of the classroom to reading as the principal focus but with considerable opportunities for listening, speaking and writing with English as the language of the classroom.

Over the past 6-7 years, roughly since the time of the first Latin American ESP conference held at Paipa near Bogota, in 1977, there has been a change in content and approach. Up to then service English courses even if they professed a reading orientation were heavily structurally based, whether producing their own materials or using published courses. An early step away and in the functional direction was the development at Universidad de los Andes (Bogota) of materials which eventually became the Reading and Thinking in English series, published by OUP. These materials were extensively trailed at a number of leading Colombian universities in 1976-77. Another early example of a functional approach is the work developed by a team at Universidad del Valle, Cali, described in early numbers of their ESP publication, ESPUVALLE. The major difference in these two approaches is that the Los Andes work was largely done on specially written or adapted texts, while del Valle materials are relatively more specialised and use original texts. The authenticity issue is not very important in Colombia. It is easy to use a published course or develop materials on the basis of original texts with a minimum of modification. It is difficult to create texts systematically, consistently and on a large scale; thus it is unlikely that the los Andes approach would be used to create new materials, although the series is in fact in use in various universities.

A new approach at the Universidad Pedagógica in Bogotá to course design and implementation is team teaching. This has been developing over the past 2 years with good results. It has required a reconsideration of the organization of the English side of the course and a reorientation towards reading skills as the guiding principle. This tendency is also noticeable in more recent materials from elsewhere. A rather distinct team teaching course in Economics is also getting under way in Universidad del Valle in Cali, with equally promising results.

Another recent development - and it is too soon to say if it will become a trend, although hopefully it will - is the introduction of SP courses in the universities with a non-reading focus. One or two courses have begun for listening comprehension and there is one proposal coming up for a course for research students in engineering, the objective being that they should be able to communicate with visiting professors who do not speak Spanish.

The general picture for the universities then is mainstream reading comprehension, now mostly functional or skills based, with some experimentation in the direction of team-teaching and non-reading courses. The range of course types is thus increasing but is still fairly narrow compared with what is theoretically possible with an ESP approach.

This has advantages and disadvantages for teacher training. On the one hand, it is possible to concentrate economically on the training of teachers in areas which have a high rate of pay-off-and we have had seminars on materials preparation, course design, teaching and testing of EAP reading comprehension. On the other hand, there is a limited range of experience available (though this is true of most institutions in other places as well) so that there is an often limited perception of what ESP is or could be. The future will, I think, see a lot of consolidation as more teachers become experienced in the mainstream, with some cautious experimentation into new areas and approaches, some of which may become viable. The private sector will very slowly extend the range of purposes for which it caters, but will generally not be very innovative. Cooperation between the universities will increase, with more exchanges and circulation of materials and ideas.

READING AND THINKING IN ENGLISH (RTE): FURTHER DEVELOPMENTS

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One example of a current and innovative application of the Communicative Approach is the RTE Series which resulted from a materials development project begun in 1974 by the University of Los Andes in Bogota and the British Council. The purpose of the study was to design materials that would answer the specific needs of the Colombian University student and, and, by extension, those of other unversity students who are not native speakers of English. The decisions on the content and approach of materials to meet these demands emerged from a careful investigation of three factors: the EFL situation in Colombia, the English requirements placed on students at the university level, and the materials in use at the time in those required courses.[1] The result was a preliminary version of English teaching materials for training university students to read academic discourse with the specific aim of developing various skills, such as the ability to recover meanings from written texts through an understanding of the way linguistic elements function, the ability to use different reading skills to suit a number of specific purposes. These preliminary materials eventually developed into the RTE Series, four books whose objective is to guide the students through the entire aforementioned process in carefully designed steps.

Reading and Thinking in English belongs to the ESP theoretical framework because it teaches English for a utilitarian purpose consistent with Mackay's definition of such uses: The foreign language is a tool for extracting information from academic sources and is not an end in itself.[2,3] The RTE methodology is also communicative in that it was developed according to the students' specific needs and in that it purposes to teach how to simultaneously use language for an analytical end when reading. In this way it corresponds to what Widdowson proposes as the Communicative Approach to language teaching: a systematic emphsis on the communicative value of language in reading passages and on how to perform communicative functions when reading.[4,5]

The RTE materials, in their final form, began to be used in the University of Los Andes and in other Colombian universities in 1979. Their implementation resulted in a complete change of approach to teaching English at the university level. In the University of Los Andes this innovation in turn gave rise to different related projects which were meant to further facilitate the extension of the Communicative Approach and ESP theoretical frameworks as practical teaching approaches. Firstly, it was obvious that a new placement exam was needed to determine a student's appropriate level of English in the University with an emphasis on reading ability rather than the student's command of the spoken language. This exam was designed and has been given several times and refined after each ocassion based on the results obtained. It is now in the process of being tested and standardized.

A second related project which was a necessary outgrowth of the implementation of the RTE methodology was the production of new exams to evaluate the performance of the students in reading at the four different levels. To fulfill this need, the teaching staff in the Language Department of the university has become a real exam-producing team. Several versions of exams for the different units in the books are being designed and tested and the results which have been obtained up to the moment for Book 1, Concepts in Use, show a high reliability index: in a sample of 20 exams, 18 obtained a score between

Thirdly, a technically designed research project was set up in 1980 to assess the internal validity of the textbooks. It attempts to examine if an adequate use of the materials results in a significant increase in the fulfillment of their learning objectives. The specific purposes of this study are:

1. To verify if each of the English texts - Conepts in Use, Exploring Functions, Discovering Discourse, and Discourse in Action- fulfills the objectives proposed for the text.

2. To identify those variables that occur more frequently in the attainment of the previously mentioned objectives.

3. To identify the strengths and weaknesses of the texts.

4. To identify and measure the extent to which the text and the methodology contribute to the improvement reinforcement and/or change of attitude toward the study of English.

5. To identify and measure the extent to which verbal aptitude influences the learning of reading comprehension in English.

To achieve these purposes, the following variables were identified: the structure of the books and the teaching methodology were specified as instrumental variables; the characteristics of the population were specified as the control variable; and the students' achievement, the students' attitude, and the teachers' satisfaction were specified dependent variables. The setting of these variables enabled the researchers to collect data which are now being processed and analyzed. This analysis has already given reliable general results related to student achievement and attitude towards learning for Book 1 of the series, Concepts in Use. It is still too early to draw specific conclusions, however, since data processing and analysis for the investigation are currently being carried out.

The common goal of the three projects mentioned above is to provide a practical basis for testing the effectiveness of both the ESP framework and the CA to language teaching. In addition, the Department has been interested in a fourth project: the expansion of the materials of the series to provide the students with extra resources for enhancing their reading ability. Based on the theory that practice in reading skills can be reinforced and even extended through activities that bring other skills into use,[6] different staff members have been engaged in producing writing and listening exercises related to the language points, rhetorical concepts, and communicative abilities developed in Reading and Thinking in English. One of these extensions is a set of laboratory materials which aims at providing self-study practice and at using the listening ability to help the students to better understand reading texts. By isolating the learners, the laboratory allows each student to work constantly and at his or her own pace, to be responsible for his or her performance and to receive immediate and individual reinforcement of all work done.[7] In this way, the laboratory is viewed as a valuable help in transferring what the student is acquiring in class to a situation which better resembles that of private study of a text and in guiding the student in the use of different reading tactics such as reading with a purpose, skimming, selecting information etc. This material is in the experimental stage and will be used further as it proves to be a useful reinforcement, extension and transference tool.

Other extensions being developed are a set of writing activities and a set of vocabulary exercises which give more practice in organizing information in texts and handling topic-related vocabulary. The extent of reinforcement the students receive when performing all these activities and the influence this has on the development of students' reading ability have yet to be evaluated. When such a formal evaluation is completed, these materials will be put into systematic use on a large scale.

Although this report is very much one concerned with research-in-progress, it is expected that the statistical results received from the self-evaluation of the RTE methodology will yield valuable insights regarding the theoretical aspects of the Communicative Approach, and in turn, will enable refinement of a series which has already proven to be a useful ESP tool.

FOOTNOTES

[1] Materials Development Project No. 1, Universidad de los Andes, 1976.

[2] Mackay, R. and A. Mountford (eds). English for Specific Purposes.

[3] Littlewood, W, Communicative Language Teaching, Cambridge University Press, 1981.

[4] Widdowson, H.G. Explorations in Applied Linguistics, OUP, 1979.

[5] Brumfit, C.J. and K. Johnson (eds). The Communicative Approach to Language Teaching, OUP, 1981.

[6] Melkin, A. and J. Merritt (eds). Reading Today and Tomorrow, The Open University Press, 1972.

[7] Dakin, J. The Language Laboratory and Language Learning, Longman, 1973.

TEAM-TEACHING IN ECONOMICS

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Background

The development of team-teaching projects in Colombia grew out of the need to make teaching more relevant and to respond more closely to the students' sense of immediacy in the learning process.

Unlike in other parts of the world, in Latin America English is not the language of education, nor the language of a colonial past, but rather the instrument of contemporary cultural penetration in aspects of everyday life, on the one hand, and an auxiliary for specialized projessional life on the other. Spanish is the mother tongue, the language of education, in fact the only language most people know or need to know in a real sense, in their day to day life.

In what circumstances can we then speak of a need for English for Specific Purposes? On the one hand, a sector of the population needs English for business, for travel, for secretarial purposes, to have access to technological gadgets, films, video cassettes, etc. Some private institutions do cater to this type of need, generally in very traditional terms. For the purpose of this paper, however, we are mostly interested in exploring the situation in an academic setting, mainly in the Universities, where the development of ESP or rather EAP has been crucial in the last few years.

Typically, public Universities in Colombia offer a large variety of programs in the different areas of Science and Technology, Health, Education and Humanities. Most of the programs have a foreign language requirement (English in most cases) which is satisfied by an average of two levels of the language offered at the freshman and sophmore semesters. This administrative setup is certainly not the most suitable to correspond to the students needs. In the first half of their careers, recommended readings in most subjects are of a general nature, often adequate translation of the classics in the field, which are easily available in Spanish in the local bookstores or are provided by the teacher as handouts. At this stage, neither teachers not students experience a real need to read in English. Later on, as a higher degree of specialization is introduced towards the middle of their careers, a stronger need is felt to handle specialized journals, research reports and articles which exist only in their English original form. By this time, however, the student has already passed the required foreign language courses without fully realizing the extent of their usefulness. This situation of mismatching which produces a general lack of motivation in the students was one of the many factors which led to the development of a team-teaching project in Economics at the Universidad del Valle.

General Principles

The project was started as an attempt to get beginning Economics students to acknowledge the existence of an extensive bibliography in English available at the University library (about 54% of all books in Economics are in English), to become familiar with it and to eventually get to use it as a complement to their recommended reading for other subjects.

The subject selected as "team" or parallel course was "Principles of Economics", which explores the development of economic concepts such as value, distribution and price from the classics until modern times. This involves reading texts on economic theory as well as others on historical, social and political background, the expression and discussion of concepts and in general, the interpretation of ideas directly from the source or indirectly through other authors.

The study of this type of argumentative discourse, characteristic of the Social Sciences was considered central in the development of the Team-Teaching course. The situation was handled according to the following general principles:

-Since the parallel class was conducted totally in Spanish, no "team" teaching operation could be carried out in the tradition established by other projects[1]. Teaching materials in English could be used in the English class.

-Readings in the parallel course are extensive, leading to class discussions and elaboration by the teacher. In the English course, intensive reading of shorter texts was selected as the main target, in view to encourage a careful handling of reading strategies and to promote an adequate analysis and interpretation of discourse.

-Readings in the English course, rather than being the main input to the "Principles" class, were used as a complement to the ideas developed there, a confrontation with the original economic sources, an element of support and clarification carried out from the perspective of the original texts.

-General objectives and contents of the English course were determined jointly by both teachers in the team. Organization of teaching materials and methodological decisions were, however, the responsibilitiy of the English teacher, as well as testing and evaluation of the course. Meetings were held regularly, but attendance to each other's classes, although desirable, could not be regularly maintained due to problems in timetabling.

In general, the principle of cooperation was maintained throughout the course and simultaneity in the handling of topics in both courses was controlled as carefully as possible.

Methodological Issues

The following methodological considerations were made at the beginning of the project:

1) Students should be considered as "false beginners", in spite of their exposure to six years of English teaching in high school. In other words, although grammar was not taught explicitly in the Team Teaching course, explanations on matters of structure were provided when necessary and no active knowledge of the language was taken for granted. Care was also taken to select texts without an undue level of syntactic complexity.

2) Reading strategies are not always well developed in secondary schools, especially with regard to the processing of information. A special unit was therefore designed in order to reinforce reading skills with particular emphasis on elements of cohesion, recognition of main idea, the purpose of the author, and the handling of lexical items as the sub-technical and technical levels. This included word formation, recognition of cognates, words in context, and appropriate use of the dictionary.

3) Authentic texts should be presented throughout. Since rhetorical organization is not as predictable in the Social Sciences as it can be in the Natural Sciences, the problem of systematization was difficult to deal with. For example, no two authors will develop arguments on the same topic in the same way. The element of personal interpretation is always present, even in the most "objective" texts. Value judgements are made constantly by explicit or implicit means. The use of "loaded" vocabulary for example can be revealing as to the author's ideological position on a certain issue.

In general, it was felt that the discourse of the Social Sciences deserved a special treatment and teaching units were developed around the most characteristic aspects that seemed to be prevalent after a preliminary study of different types of texts.

4) Special provision should be made within the course to include different learning strategies, to encourage the development of personal skills. Ample opportunity was given for students to handle texts in different ways. Workshops and individual projects were carried out, in which students were asked to explain their criteria for selecting and processing particular texts.

5) The use of translation should not be encouraged at the beginning but rather as a final step in the interpretation of the text. The habit of word-by-word, often meaningless translations, is usually acquired in secondary school leading to linear reading and inadequate processing of the text as a whole.

The main preoccupation in devising a methodology must be, however, to make learning not only relevant but also enjoyable to the students, drawing constantly from their own knowledge and experience. In this sense, team teaching becomes a highly efficient way of using the students' personal contribution to promote learning and understanding of otherwise difficult linguistic inputs.

Evaluation of results

So far, the first level Team-Teaching course has been offered to two generations of students. The development of a second level is in progress, with a tendency to drift away from the team modality for practical reasons that will be explained elsewhere. A systematic evaluation of results has not been made, although questionnaries filled in by the students show an extremely positive reaction to the course.

Some of the encouraging observations that can be made so far:

-The use of Economics texts in English in the library has increased enormously in the last couple of years (definite statistics are not yet available).

-The students' attitude towards reading in the foreign language has changed from one of fear and antagonism to one of confidence and familiarity. Most students also report an improvement in their reading capacity in Spanish as a result of being exposed to the English course.

-Increased demands are made by the students upon the Economics teachers to recommend bibiliography in English for their courses.

-Texts used in the English class are often reported to be a crucial input for papers written for the "Principles" class.

These highly impressionistic observations are, at least, as valuable as the results of conventional examinations which are carried out regularly to satisfy University regulations. In fact, during the process of the development of this project, I have come to confirm my belief that testing of any kind reflects only minimally the amount of learning that has taken place. Whether based on a traditional approach or on a communicative one, testing is always done on more or less discrete elements and, more specifically, on those points that are thought to be relevant by the teacher, whether they are relevant or not to the student-reader-learner.

The real test of our success in teaching ESP should come from the responses to questions such as the following:

-How much did you learn from the reading?
-How much does it relate to what you already knew?
-How can you profit from it? What can you do with it?
-How much more do you want to find out about it?
-How has it changed you as a human being?

It would be interesting to consider whether we, as teachers, and our students, are ready to face this kind of challenge.

[1] For a description of comparable projects, see The British Council ELT Documents No. 106, 1980.

PRODUCTION OF ESP MATERIALS

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Introduction

The Language Department at EAFIT is a service department offering courses for the areas of Business Administration, Accounting, Geology and Engineerings (Civil, Mechanic, Production, Computer).

The main objective of our courses is to develop the reading comprehension skills necessary to extract information from academic textbooks, professional journals and technical manuals.

Elements such as class size and time available (only two academic semester per area, 4 hours/week) limit the scope of our objectives.

Process followed for the Production of Materials

Our department has designed tailor-made programs for the areas of Business Administration, Accounting, and a global program which covers the areas of Civil, Mechanical, and Production Engineering as well as Geology. Computer Engineering is treated separately.

These materials consist of reading modules or booklets about twelve units each. In the designing of these materials the following considerations have been taken.

1. Selection of Readings
   - Readings have been selected from general introduction or reference books in each area to make them as universial and stable as possible.
   - In the Engineering area, authentic readings have been used mainly because of the difficulty to adapt them without changing the content.
   - In the Business Administration and Accounting areas, texts have been adapted from different sources to fit the students' interests and level of proficiency.
   - In the selection of readings for both areas, we have always counted on the assistance of professors in those areas. This cooperation has been most valuable.
   - Selected readings for the first semester intend to cover a range of general topics common to all Engineering areas and to the Business and Accounting areas. Readings for the second semeter tend to be more specialized in order to expose students to as many topics and lexical items as possible.
   - In this process we have found that Production and Mechanical Engineering have many topics in common. The same happens with Geology and Civil Engineering. This fact facilitates the groupings of readings.

2. Grammatical - Lexical Content
   - An inventory of the most common and troublesome structures found in reading comprehension has been made. This inventory makes emphasis on those aspects which are more difficult for Spanish speakers. For instance, separate elements in the sentence which constitute a semantic unit: two-word verbs, prepositions at the end of a sentence, compound conjunctions (either..or), etc.
   - Whenever possible, these structures are embedded in the reading which is selected.
   - Structures are distributed throughout the units and exercises are developed for each unit.
   - Lexical items are classified into technical, sub-technical and non-technical vocabulary, the latter being the lexical element which represents the greatest difficulty. For the Engineering materials, a glossary of technical terms is included with each unit.
   - The first semester reading modules include a unit on dictionary usage and word formation (affixes, compund words).
   - A set of vocabulary exerciss are also designed for each unit.

3. Research Aspects
   - Readings are carefully studied to determine level of difficulty and suitability to grammatical structures presented. This, however, is not always possible.
   - The readings for Business Administration were chosen following a common theme: The Business System. Topics were determined. Then, each topic was developed by gathering the information from different sources.
   - It was found that the language of B.A. lends itself better for adaptation and modification since it is not as technical as the language of Engineering.
   - Engineering texts, however, should be authentic. It is difficult to change them without impairing their content. These texts could only be adapted successfully with the close cooperation and assistance of the corresponding professional Department.
   - In our experience, the assistance of the Business Department and Engineering areas has been mainly for the reading selection process and preparation of glossaries on technical terms.
   - Every semester readings are revised to make the necessary changes.

Conclusion

The inappropriateness of most materials developed in English-speaking countries to suit our individual and local needs has made us prepare our own materials.

When a good textbook appears in the market, and in fact there are some, it is extremely difficult to bring it into the country. Thus, it becomes a frustrating process.

ADVANCED READING IN ESP

Nora Perez
Universidad del Valle

At the Universidad del Valle a few careers—basically in Sciences and Psychology—include English III in their curricula. For this advanced level, reading materials are specifically designed for every career. The materials are organized taking into account the types of texts—abstracts, book reviews, articles, etc.—present in the specialized periodicals and journals in the different areas.*

In 1981 and 1982, I had the opportunity to teach English III for Psychology students who had used in English I and English II the books Exploring Functions and Discover Discourse of the series Reading and Thinking in English. In both groups I could observe that students had difficulties with the materials I had developed for that level. These problems and their possible causes can be summarized as follows:

-Difficulty with authentic reading containing different types of discourse—argumentation, enquiry, exposition, etc.—used in periodicals and journals. This could be explained from the fact that the students had only read simplified and adapted texts in some form of the expositive discourse in the previous levels.
-Difficulty with the content of the texts because of the little practice in readings taken from books of psychology in those levels.
-Slow reading due to the transition between the texts mentioned before to authentic and more complex ones presented in English III.
-Inappropriate use of reading skills and strategies because of bad reading habits in Spanish and English.

On the other hand, I could also observe that students in both groups showed great interest and they became highly motivated in the content of the course and the reading strategies for handling bibliography at a high level. They discovered valuable information which could supplement the content of their subjects in their curricula. (In Psychology unlike in other careers, most of the students who take English III are in their fifth semester; other are in their sixth or higher semsters).

After the initial experience with the group I had taught in 1981, I reorganized the three units with texts taken from specialized periodicals and journals of psychology in the followings way:

- Unit I, containing abstracts, advertisements, and news where the expositive discourse is dominant.
- Unit II, made up of research articles, case histories and polemic articles where argumentation, exposition, enquire, etc., are interwovern.
- Unit III, containing book reviews, critical commentaries on articles and replies to reviews and commentaries where dominance of argumentation and evaluation can be observed.

After covering the reading materials of every units, the students were asked to go to the library where they could read texts in periodicals and journals i the areas of their interest. They also borrowed issues of journals to read at home on their own. At the end of the semester they answered a questionnaire where most of them clearly stated that the objectives, the content and methodology of the course were quite adequate for English III. They also suggested the use of a similar approach for the first and second levels of English for Psychology students to replace the books of the series previously used.

To overcome the difficulties mentioned above, I began designing the syllabi for English I and English II, taking into account the suggestions made by my former students and my own observations. I have already developed two units which I am teaching in English I at present. All the readings are taken from books of Psychology and they are selected to illustrate the different exponents of the various basic functions of the different types of discourse used in Psychology. The materials also develop the main reading skills and strategies which are involved in the process of reading comprehension of academic texts. The students also select their own readings from books in the library and they borrow the books in the areas of their interst to read at home in order to supplement the content of the other psychology subjects. Later on, the second level will be developed to be the follow-up of Enlgish I and the natural link to English III.

From the experience we have gathered from teaching this advanced level at the Universidad del Valle, it is becoming more and more necessary to develop materials and methodologies which mirror as closely as possible the activities carried out in the content areas of each career.

* A justification of this framework can be found in "Notas para Reestructuracion del Ingeles III" Juan de la Cruz Rojas 1980 - Mimeo - Universidad del Valle.

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English For Specific Purposes

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FROM THE EDITOR

Establishing a definitive research base is a long standing need of Engish for Specific Purposes. Jack Ewer eloquently outlined the necessity of research "at an acceptable standard of rigor and generalisability" in the landmark article "Nine Problem Areas in ESP" (see issue 54). Publicizing research has been a goal of the Newsletter/ Clearinghouse since its beginning in 1977; yet the 1981 dialogue between Ewer and Drobnic pointed out a dangerous imbalance in both the type and extent of [research] literature amassing to date.

Since Ewer's incisive comments appeared, we have increased our reporting of research efforts, while still striving to fulfill our other mandates. Issue 69 featured Adelina Osuna's article on the core language of biology. Issue 75-76 noted the establishment of a research program within the Brazilian national ESP project. Issue 79, part of a series of special issues on ESP developments in South America, included a separate research section with two very solid research reports.

Each of these articles, along with others appearing in other publications not easily accessible to our widespread readership, has contributed to increasing the body of research literature now available in ESP.

Yet, in 1984, the establishment of a definitive research base of the rigor and replicability demanded by Ewer remains an elusive goal. ESP still lacks a research base on which to adequately anchor its rapidly expanding literature. As an exciting response to the long standing need, this issue of the ESP Newsletter presents the first part of a paper by Robert Bley-Vroman and Larry Selinker entitled: Research Design in Rhetorical/ Grammatical Studies: A Proposed Optimal Reserach Paradign. We print it as part of our continuing effort to foster much needed research.

Research Design in R/G Studies develops in two parts. First, it outlines five suggested requisites for ESP Rhetorical/Grammatical Analysis: 1) practical problem area and current tools; 2) "quick and dirty" analysis; 3) explicit initial assumptions; 4) highly-valued texts; and 5) subject specialist informants. Then, placing these five steps within the pre-requisite phase, the paper posits a three phase strategy for research design: a) the pre-requisite phase; b) the analysis phase; and c) the applications/use phase.

As a balance to the Selinker, Bley-Roman article, the remainder of this issue is devoted to fulfilling our other mandates to keep you abreast of activities in ESP. We include our annual calendar of upcoming conferences, an update on new titles in the Clearinghouse and other general announcements.

RESEARCH DESIGN IN RHETORICAL/GRAMMATICAL STUDIES: A PROPOSED OPTIMAL RESERACH STRATEGY

Robert Bley-Vroman
University of Texas, Austin

Larry Selinker
University of Michigan

I. Introduction

During the process of working on a fairly large project over the past several years attempting to establish a "pragmatic paradigm" for EST research (Selinker and Bley-Vroman, 1980), we realized that there exist no well-established criteria for selecting and analyzing EST ("English for Science and Technology") texts to be studied relevant to a particular ESP ("English for Specific Purposes") situation.[1] One effect of the lack of such criteria is that replication of previous work proves to be very difficult and descriptive research results are just not cumulative. Additionally, we find that graduate students who intend to do "rhetorical/grammatical (R/G) analysis" of written EST texts[2] have great difficulty in the early stages of their work because of the lack of an appropriate model or models. This brief paper presents to colleagues our initial recommendations based on (a) a survey of a representative sample of printed and in-press R/G analysis (Selinker and Bley-Vroman, 1980)[3] and (b) an in-depth analysis of one work (Swales,

1981) which presents in careful detail the major steps undertaken in one extended R/G analysis[4].

Before presenting our recommendations, we wish first to briefly discuss some of the difficulties inherent in the selection of EST texts for analysis in R/G studies. One obvious way to select texts is some more or less random procedure. But, choosing texts at random from a library, say, presents a corpus not clearly linked to any purpose, pedagogical or theoretical. Also, with a random procedure, there is no way to control for quality of work done by practitioners in a particular field or sub-field. Additionally, the problem of sheer quantity of technical information is simply mindboggling. The number of texts looked at by any one R/G analyst will necessarily represent such a miniscule portion of the technical information of a particular field that the analyst can have little confidence that the texts he or she selects are an adequate representation of the subject matter concerned. Finally, because the types and genres of technical writing are so various, random selection simply produces, we feel, an uninterpretable hodge-podge. On the other hand, non-random selection of data according to some previously stated criteria runs the risk of excessive subjectivity, as well as the danger of the analyst imposing preconceived classifications on the data, especially concerning the choice and labelling of the units studied. This problem is discussed by Swales (1981) and Pettinari (1982), with Pettinari (In Prep.) adding the important dimension of selecting and interpreting written EST texts with an informant in the institutional setting, i.e. the ESP context in which the text is used.

What is a reasonable way out of this dilemma of selecting which texts to analyze? We think one useful way can be found in the notion "highly valued text"[5], a notion which we develop below.

In this paper, in Section II we present suggested steps for EST R/G analysis using a work we admire (Swales, 1981) as an exemplar. Please note that in this short paper, we fail to do Swales' work justice, especially his extended discussions of grammatical choice influenced by rhetorical means. In Section III, we conclude by presenting our suggestions as an Optimal Research Strategy within a larger context of R/G studies.

II. Steps for EST R/G Analysis

We recommend that colleagues doing R/G analysis contemplate following the procedures outlined below. These steps though apparently sometimes temporal in character are not to be construed as being necessarily that way.

STEP ONE: PRACTICAL PROBLEM AREA AND CURRENT TOOLS

We feel strongly that every R/G analysis should begin with careful observation of a practical learning/teaching problem, concentrating on possible dissatisfaction with tools which exist to ameliorate it. For example, Swales states that, in his case, he had:

> ...become profoundly dissatisfied with the pious, prescriptive, and ill-founded character of the materials dealing with the introduction sections of ...pieces of academic prose. (1981: p.1).

We believe that concentrating on the tools which people need to use in confronting practical problems often ensures cooperation in the analysis of those tools on the part of the people involved in the "real-life" problem. This is no trivial point: It is our experience that the quality of the analysis is enhanced by such cooperation and may be vitiated without it. In STEP FIVE we develop the concept of working with "subject-specialist informants."

STEP TWO: "QUICK AND DIRTY" ANALYSIS

We agree with Swales that the analyst should next do a "quick and dirty" analysis of the problem (Swales: 1981: preface) in order to suggest to colleagues appropriate texts and appropriate units to be studied in depth. Swales, after his initial observation of the problem that concerns him--namely, students have trouble writing introductions--decides that the appropriate unit to be studied in Article Introductions is the portion of the "typical project" (p. 1) which he calls "describing previous research (DPR)" (p. 2). Swales presents, through this quick and dirty analysis, insightful information about the unit concerned and also about units which surround it (but, see below).

In our own research experience, an example of step 2 was the observation, after watching students struggle for many years with technical prose, that students were apparently missing an important part of the interpreatation of an EST paragraph even when they:

> ...may understand all the words in each sentence and/or all of the sentences in that paragraph. (Selinker, Todd Trimble & Trimble, 1976, p. 281).

Research stemming from these observations led to some understanding of the role of presuppositional information in a "conceptual paragraph".

STEP THREE: EXPLICIT INITIAL ASSUMPTIONS

It is necessary, we feel, to establish and explicitly state the initial series of assumptions which will guide the researcher studying the unit in the text(s) under observation. Examples follow:

1) Identity Criteria: The first assumption that must be made is that the unit under-study exists and is not an artifact of the analyst's tools. In the case of Swales' study, the unit describing past research was isolated by noting the occurence of references to previous work in the form of names and dates in the portion of the text studied. In the case of other units, however, we agree with Swales that the signals are far less explicit. We wish to suggest here that there may be a cline from units which are highly isolatable on the basis of explicit clues to those which are isolatable only on the basis of the vaguest intuition. Toward the latter end of the cline, reference to a "subject specialist informant" (Selinker: 1979) is unavoidable. (See STEP FIVE)

2) Boundary criteria: A second assumption which ought to be made explicit in any R/G analysis concerns the boundaries of the unit under study. We agree with Swales (p.c.) that it is often possible to determine with fair certainty the existence of EST units even though their precise boundaries may be fuzzy. In the case of Swales study there appears to be at times clear boundaries around the units studied, in other cases these are not so clear. (Please see below)

We are sure that colleagues will wish to add to this list of explicit initial assumptions.

STEP FOUR: HIGHLY-VALUED TEXTS

In order to get out of the dilemma referred to in the Introduction (i.e. the danger of randomness, on the one hand vs. excessive subjectivity in the selection of EST texts, on the other), we recommend for the reader's consideration the notion "highly-valued text". By "highly-valued" we mean works which are perceived by specialists in a field, as central to that field and central to the acculturation of neophytes into that field. Works may be considered central to a field in two senses: First, by virtue of their content; second, by virtue of their form, i.e. serving as models in which to present highly-valued content.

From theoretical linguistics we choose two examples: Chomsky (1965) as a model of content and Ross (1967) as a model of form. In order for a neophyte to become a theoretical linguist, many (if not most) linguists envision that detailed knowledge of the model proposed by Chomsky in ASPECTS OF THE THEORY OF SYNTAX is essential. (An updated reference serving the same function in that paradigm would be Chomsky, 1981). That is, even though Chomsky's style, with its many parentheses, may not be considered exemplary by all linguists, the content he presents there remains to this day highly valued. But note that in current day theoretical linguistics, although the model may be considered outdated and even "incorrect", knowledge of the content is still deemed indispensible, and hence, the work is highly valued in our sense. Concerning Ross (1967) knowledge of the content, as we read the field, is not considered indispensible. Nevertheless, this work has been presented to students as a model of one important way of organizing linguistic argumentation and presenting the resultant content. As with the Chomsky example, the form or argumentation in Ross (1967) may not be considered valid; nevertheless, knowledge of that form has been considered necessary to a neophyte's acculturation and, hence, the work is highly valued in our sense.

It is our impression, having -- together and with other colleagues -- dealt with a wide spectrum of fields in EST, that the notion highly valued in these two senses will be more or less applicable to all fields or major sub-fields, however the practitioners divide up what they do.

How could one go about determining what is highly valued in a new field? We have some suggestions. One could observe an introductory course in the field from this point of view: certain texts are usually assigned in such introductory courses and given prominence by instructor. Detailed exigesis on the text might occur and might form the basis of an entire course, on a more advanced level, by itself. In addition to observing courses, we feel the "respected" journals in a field serve as a filter, selecting and presenting articles which are good candidates for highly-valued status in that they provide models of good practice as discussed above. There are other obvious suggestions one could make in this vein. Whatever approach one takes, one must learn to talk to specialists in the particular field involved (see STEP FIVE).

As a final point here, we compare Swales' (1981) methodology with the above recommendations. Swales acknowledges (p.c.) that his methodology in selecting texts was as follows: A reserach assistant was sent to the library to choose, at random, 16 journal articles in each of three major fields, i.e. a total of "48 recent Article Introductions" (Swales, 1981, p.8). Importantly, only the introductory sections were xeroxed with the entire article not considered.[6] We believe, and we think Swales agrees in hindsight, that things might have been better had he used a less random selection procedure, had the Introductions not been removed from their textual context, and had he read the entire article, consulting a subject specialist informant all along the way.

An example from the EST/ESP literature, which we discussed as length with Swales, might suffice to demonstrate the point we wish to make here. The following sentence begins the Introduction of Widdowson (1981), an article which many of us feel might gain highly-valued status in ESP work:

> The work that has been done to date on the teaching of English for Special or Specific Purposes (ESP) has generally been predicted on the following assumption: If a group of learners' needs for the language can be accurately specified, then this specification can be used to determine the content of a language program that will meet these needs. (Widdowson, 1981, p.1)

One of Swales' main reasons for choosing to work with Introductions is his belief that by definition, any educated person can read them and that one does not need to be a specailist to do so. We feel that his is true, but misleading. One of us has tried out the Widdowson sentence informally on several members of his family, getting of course a reading, but missing what we consider as important information in an essentially correct reading. The problem here is that outsiders to the ESP field, in this case interested family members, just do not read the phrase "learners' needs" as we practioners do. At this stage in our field, we worry about such things as "goal-oriented needs" vs. "process-oriented needs", "real needs" vs. "hypothetical needs", "current needs" vs. "future needs", and so on (See, Selinker, Tarone, and Hanzeli, 1981 pp. 2,132,145 and passim.).

Our point here, to summarize: There are many possible semantic and pragmatic facts implicit to practitioners reading an Introduction to a technical article that an outsider can not be expected to see even if he/she can get a reading based on being an educated speaker on English. In fact, we go further. It is our view that we should expect this to be the normal state of affairs, another case of a potential trap for ESP-people, a trap in the area of "you don't know what you don't know". (See Selinker, 1979, pp. 200-201 for further discussion). We have felt for a long time that one way out of this dilemma is the careful use of subject-specialist informants.

FOOTNOTES

1. This problem has been made clear in several places. See, for example in ESP Newsletter issue 75/76; the editor, Kathryn Michaels, states:

> For some time now, the ESP Newsletter has been pointing up the need for a solid research base upon which to evaluate and build ESP. We were not and are not alone in this expression. In 1981, Jack Ewer ranked research as the most important of the "Nine Problem Areas in ESP". (See issue #54)

2. By "rhetorical/grammatical analysis", we mean:

> the process of determining how certain grammatical features correlate with certain rhetorical features, as well as attempting to determine which controls which.

This definition comes from Selinker and Bley-Vroman (1980); several people helped in the formulation of this description and we thank them for fruitful discussions: Pit Corder, Henry Widdowson, and especially, Louis Trimble.

3. In that paper, we present a chart which breaks these analyses down into author/audience level, subject matter studied, genre, etc. We wish to thank Karl Drobnic of the EST Clearinghouse for providing us with the results of a search of the literature.

4. We have also had the benefit of Swales' trans-Atlantic recollections (p.c.) on the processes which were undertaken in the course of his research. We wish to thank him for so kindly putting up with our extensive "specialist informant" queries.

5. We wish to thank Russ Tomlin who was in on the initial discussions of such concepts as "pragmatic paradigm" and "highly-valued text". He is, of course, not responsible for our formulations.

6. Unfortunately, complete references are not provided for examples in case the careful reader wishes to check the effect, in this case, of the rhetoric of the full text upon the Introduction.

ANNOUNCEMENTS

"Professional Cultural Orientation in ESP" by Frelick & van Naerssen is no longer available through the EST Clearinghouse. The paper has now been printed in Language Learning and Communication, Vol. II, 3rd issue. Further information on the paper should be addressed to: John Wiley & Sons; 605 Third Avenue; New York, New York 10058.

* * *

Chris Kennedy is on a two-year secondment from the University of Birmingham, England where he is a lecturer in Applied Linguistics, and is now working in Tunisia as ESP Advisor to the Institutes of Higher Education, Science and Technology under the British Council KELT Scheme. He is starting to investigate the needs of ESP teachers and students in Tunisian Higher Education and hoping to create a small ESP Resource Centre based in the Institute Bourguiba des Langues Vivantes, Tunis for use by teachers. He is keen to keep in contact with those working in the field in North Africa, the Middle East and elsewhere and would welcome news, exchange of materials, etc. He remains editor of English Language Research Journal and articles for submission should still be addressed to him. Mail is being forwarded from Birmingham or he can be contacted at the British Council c/o British Embassy, Place de la Victoire, Tunis, Tunisia.

NEW TITLES IN EST CLEARINGHOUSE

Swales, John. "Observations on Technical Manual Definitions in Science and Law - Evidence for Subject, Specific Course Components". .75(d) 1.75(f)

Swales, John. "Reflections on the Teaching of English Reading Skills in the Arab World". 2.30(d) 3.50(f)

Swales, John. "The Educational Environment and its Relevance to ESP". .75(d) 1.75(f)

Swales, John. "Examining Examination Papers". 1.50(d) 2.50(f)

Swales, John. "ESP Comes of Age? 21 Years after 'Some Measureable Characteristics of Modern Scientific Prose'". 1.60(d) 2.60(f)

Swales, John. "Developing Materials for Writing Scholarly Introductions". .75(d) 1.75(f)

Swales, John. "Thoughts On, In and Outside the ESP Classroom". 1.25(d) 2.25(f)

Swales, John. "Vocabulary Work in LSP - A Case of Neglect?". 1.25(d) 2.25(f)

Swales, John and Bhatia, Vijay. "An Approach to the Linguistic Study of Legal Documents". 1.10(d) 2.10(f)

Evans, Tony Dudley and Swales, John. "Study Modes and Students from the Middle East". .75(d) 1.75(f)

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WORKING WITH LANGUAGE

A MULTIDISCIPLINARY CONSIDERATION OF THE USE OF LANGUAGE IN WORK CONTEXTS

Proposed volume in the series Contributions to the Sociology of Language

A volume on the topic of language use in work contexts is proposed for the series Contributions to the Sociology of Language. The CSL series is published by Mouton and the General Editor is Joshua Fishman. The volume, provisionally entitled WORKING WITH LANGUAGE, will be c 300 pages in print. It will be edited by Hywel Coleman. The collection will be multidisciplinary and will aim to bring together the work of anthropologists, applied linguists, conversation and discourse analysts, language teachers, linguists, social anthropologists, social psychologists, sociolinguists, sociologists and others who are concerned with the use of language in work. It is expected that the collection will include substantial theoretical discussions as well as several case studies. Data will be drawn from a variety of languages and will come from urban and rural contexts in both Western industrialised societies and the Third World. The papers will deal with the language of professionals, the language of workers in industry, agriculture and other types of employment, and the language of employers, the employed and the unemployed.

Call for Papers

In the first instance, authors are invited to submit an abstract (approximately 500 words), with an estimate of the length of the final version of the paper in which they are proposing. The closing date for receipt of abstracts is February 29, 1984. Suitable abstracts will be selected by the Volume Editor. Authors will then be issued with style sheets and invited to write up full length versions of their papers, after which the complete collection will be submitted by the Volume Editor to the General Editor. The General Editor reserves the right to reject manuscript in whole or in part. All contributions must be in English. Submissions should not have been published previously and should not be under consideration for publication elsewhere.

All abstracts and correspondence should be addressed to the Volume Editor. Correspondents in Britain and Europe may use this address:

Hywel Coleman
British Council Indonesia
c/o Foreign & Commonwealth Office
King Charles Street
London SW1A 2AH Great Britian

Correspondence from other countries should be addressed to:

Hywell Coleman
Jalan Botolempangan 54
Ujung Pandang
Indonesia
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TEACHING TECHNICAL AND PROFESSIONAL COMMUNICATION

Sponsored by: Program in Technical Communication
College of Engineering; The University of Michigan

July 30 - August 3, 1984

Conference Chairs: J.C. Mathes and Dwight W. Stevenson

The first of its kind in the country, this conference has been offered continuously since 1975. Attended by participants from throughout the United States and numerous foreign countries, it is designed to improve instruction in technical and professional communication in universities, colleges, technical institutes, professional schools, and community colleges. It is designed especially for teachers new to teaching technical and professional communication and for administrators responsible for developing programs. The conference is also valuable for experienced teachers from both educational institutions and industry to exchange ideas and to learn new approaches to teaching communication.

FEE: The registration fee for the entire conference or any part of it is $475.00 per person. This fee covers tuition and all conference materials, a bus tour, picnic, and various social activities. Early application is strongly recommended; the conference is limited in enrollment and fills to capacity.

FOR FURTHER INFORMATION: Ms. Gretchen Jackson, Technical Communication Conference Coordinator, 1223 East Engineering, College of Engineering, The University of Michigan, Ann Arbor, MI 48109. Telephone: (313) 764-1420.

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THE 1984 ABC SUMMER WORKSHOPS

25 June - 14 July -- THE 1984 ABC SUMMER WORKSHOPS organized by the TESOL program at Teachers College, Columbia University will explore models, practices and issues in language teacher preparation from the viewpoint of teachers, teacher educators, supervisors and researchers in Second Language Acquisition including classroom observation. For further information write to: John F. Fanselow, ABC Workshops Director, Box 63EST, Teachers College, Columbia University, New York, NY 10027.

Call for Participation

The TESOL program at Teachers College, Columbia University, is soliciting proposals for its 1984 ABC Summer Weekend COLLOQUIUM (July 6 & 7) on topics related to models, practices and issues of language teacher preparation, supervision, Second Language Acquisition research, including classroom observation. Proposals for presentations including demonstrations (all 50 minutes) are welcomed in English, French and Spanish. Limit the proposal to a 350 word abstract and include a summary of 100 words. Send two copies with your name, address and telephone number, no later than March 30, 1984 to: John F. Fanselow, ABC Colloquium Director, Box 63 EST, Teachers College, Columbia University, New York, NY 10027.

* * *

☆ ☆ ☆ CONFERENCE CALENDAR ☆ ☆ ☆

MARCH		
6 - 11	Eighteenth Annual Conference of Teachers of English to Speakers of Other Languages (TESOL). Information: TESOL Central Office; 202 DC Transit Bldg.; Georgetown University; Washington, D.C. 20057	Houston, Texas USA
15 - 17	Teachers of English as Another Language (TEAL) Conference. Topic: Culture, Contact and Communication. Information: TEAL '84 Registrar; 6529 Dawson Street; Vancouver, B.C. V5S 2W2. Telephone: (604) 433-9457	Richmond, B.C. CANADA
20 - 24	International Education Materials Fair DIDACTA. Information: Secretariat DIDACTA; Postfach, CH-4021; Basel, Switzerland	Basle, SWITZERLAND
29 - 31	Silver Jubilee Meeting of the Linguistic Association of Great Britain. Information: M. Wheeler; Department of Linguistics; University; P.O. Box 147; Liverpool 169 3BX; United Kingdom	Hull, UNITED KINGDOM
APRIL		
5 - 7	Conference on Foreign Languages for Business and the Professions. Information: Conference Chair; Dr. Geoffrey M. Voght, Associate Professor of Spanish; Dept. of Foreign Languages and Bilingual Studies; Eastern Michigan University; Ypsulanti, MI 48197. Telephone: (313) 487-1120 ext. 0178	Dearborn, Michigan USA
13 - 15	California Teachers of English to Speakers of Other Languages (CATESOL) Conference. Topic: On-line for the Future. Contact: Beverley McChesney or Denise Murray; Building 100; Linguistics; Stanford, CA 94305	San Jose, California USA
23 -27	Nineteenth Seminar of the Regional Language Centre (RELC). Theme: Communicative Language Teaching. Information: Yolanda Beh; RELC Building; 30 Orange Grove Road; Singapore 1025; Republic of Singapore.	SINGAPORE
25 - 27	Eighteenth International Congress of the International Association of Teachers of English to Speakers of Other Languages (ATFFL). Theme: Ways in which teachers teach and learners learn. Information: Mrs. B. Thomas; 87 Bennels Avenue; Tankerton, Whitsable, Kent CT5 2HR, United Kingdom	Groningen, THE NETHERLANDS
MAY		
14 - 17	International Conference on Communications. Theme: Innovative Research and Applications of Telecommunications. Information: Philips Research Laboratories; P.O. Box 218; NI 5600 MD Eindhoven The Netherlands	Eindhoven, THE NETHERLANDS

MAY

21 - 25	Seventeenth Colloquim of AIMAV (Association Internationale pour la Recherche et la Diffusions des Methodes Audio-Visuelles et Structuro-Globales). Information: AIMAV; University, Blandignberg 2; B-9000 Ghent, Belguim.	Ghent, BELGUIM

JUNE

25 - 28	Fifth International Phonology meeting. Information: Institute for Linguistics; Luegerring 1; A-1010 Wien Austria.	Eisenstadt, AUSTRIA
25 - 14 July	1984 ABC Summer Workshops. On models, practices and issues in language teacher preparation. Information: John Fanselow; ABC Workshop Director; Box 63 EST; Teachers College; Colombia University; New York, NY 10027. (See announcement, p. 7)	Colombia University, New York, USA
25 - 3 Aug.	Teachers of English to Speakers of Other Languages (TESOL) Summer Institute. Theme: Crossing Bridges. Information: Karl Drobnic; English Language Institute; Oregon State University; Corvallis, Oregon 97331, USA.	Corvallis, Oregon USA

JULY

3 - 6	Fifth World Congress of the French Association of Comparative Education (AFFC). Theme: Dependence and Interdependence in Education. Information: AFFC Congress Committee; 11 rue Pierre-Demours; F-75017 Paris, France.	Paris, FRANCE
13 - 15	TESOL Summer Meeting. Information: Marianne McDougal; English Language Institute; Oregon State University; Corvallis, OR 97331.	Corvallis, Oregon USA
30 - 3	Teaching Technical and Professional Communication. Information: Gretchen Jackson; Technical Communication Conference Coordinator; 1223 East Engineering; College of Engineering; University of Michigan; Ann Arbor, MI 48109. Telephone: (313) 764-1420.	Ann Arbor, Michigan USA

AUGUST

dates to be announced	Eighteenth Colloquium of AIMAV (Association Internationale pour la Recherche et la Diffusion des Methodes Audio-Visuelles et Structuro-Globales) on creativity in language teaching. Information: AIMAV; University; Blandijnberg 2; B09000 Gent, Belgium.	Sao Paulo, BRAZIL
5 - 10	Seventh World Congress of the International Association of Applied Linguistics (AILA). Theme: The Contribution of Applied Linguistics to International Understanding. Information: Dr. J. Nivette; AILA World Congress; 110/VUB, University; Pleinlaan 2; B-1050 Brussels, Belgium.	Brussels, BELGIUM

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From the Editor

This issue carries the second part of the article "Research Design in Rhetorical/Grammatical Studies: A Proposed Optimal Research Strategy", written by Robert Bley-Vroman and Larry Selinker. The article presents a pragmatic paradigm for an Optimal Research Strategy in Rhetorical/ Grammatical studies, as developed in three parts: 1) the prerequisite phase 2) the analysis phase, and 3) the application/use phase. The authors concentrate on the pre-requisite phase of the paradigm, presenting five steps for EST Rhetorical Grammatical analysis.

Last month's issue presented steps one through four.

Step One involves beginning the analysis with careful observation of a practical learning/ teaching problem and concentrating on dissatisfaction with current tools used to confront the problem.

Step Two involves a "quick and dirty analysis" of the problem.

Step Three indicates the establishment and explicit stating of initial assumptions to be used to guide the research. Bley-Vroman and Selinker cite identity criteria and boundary criteria as examples of two assumptions that should be made explicit.

Step Four develops the notion of "highly valued" text as a solution to the dilemma of selecting which texts to analyze. "Highly valued text" is a work considered central to the field, by virtue of content, or by virtue of form. The authors also suggest several ways to determine what is a highly valued text.

This month's newsletter outlines the fifth step in the pre-requisite phase of the paradigm for EST R/G analysis: the use of subject-specialist informants. Bley Vroman and Selinker also present a random list of fourteen problem areas associated with the use of subject specialist informants.

The article finishes with a cogent outline of the authors' proposal for an Optimal Research Strategy and the hope that other reserachers will carefully study their work and then comment on the proposal in order to further research in this area of EST.

* * *

STEP FIVE: SUBJECT-SPECIALIST INFORMANTS

In step four, we emphasized that one must seek help in order to select highly-valued texts and to gain appropriate readings from them. In fact, not just in text selection, but throughout the process of R/G studies on EST texts, we recommend the integration of subject-specialist informants. Unfortunately, the literature to date on this topic is as yet sparse though more and more colleagues are gaining experience in this area. One detailed study is Selinker (1979). Hucking and Olsen (In Press) attempted a replication of that study based on interesting dissatisifactions with it. Tarone et. al. (1981) integrate the informant to the degree of making him a co-author, an important development in ESP team-work (see below). Swales (1981, pp. 13 & 14) comments on Pettinari's (1982) discussion of a way out of circularity of EST analysis through the use of such informants. Swales points out that he did not use informants, claiming that:

> The charge is likely to be less serious in a genre-specific 'bottom-up' applied study than in 'top-down' discourse analysis aimed at developing our understanding of

> features common to all texts. In the present study, there is little problem in identifying the onset and offset of the DPR[7] itself because of the presence and absence of references to previous study. (Swales, 1981, p. 14, emphasis added).

We have had much discussion on this point, between ourselves and with several graduate students[8] and we're not sure we agree among ourselves here since Swales' claim is carefully hedged. Perhaps it is "less serious" in his case than in other studies one could imagine, but we do not agree with Swales if he feels that the problem is not serious here as well. We feel that there is a problem with his study and that the difficulty lies in his not being able to unambiguously carry out what is analogous to our STEP three (See issue #82/83), especially concerning explicit statement of assumptions underlying the identification of units and their boundaries. For example, see Figure I. First, we note that unit or "move" 3 has the presence of "references... to previous study" (Swales' criteria for move 2, the DPR) and, thus his criteria for the DPR itself suffers. Second, we feel that the sentence at the end of move 1 in his example:

> Typing for these antigens has become a tool of steadily increasing interest.

is arbitrarily put with move 1 when, to our eyes, it could just as easily have been put in move 2, the DPR itself. Only a good subject-specialist informant (see below) could have disambiguated this and many similar cases in Swales' study. Of course, Swales would have needed several informants given his use of texts from multiple fields.

FIGURE 1
HLA Antigens in Patients with Scabies

The cell-membrane molecules which are determined by the closely linked genes in the HLC chromosomal complex may be divided into two different classes (Thorsby, 1979): (a) The HLA-ABC molecules, which are determined by allelic genes at the A, B and C loci, are present on probably all nucleated cells and are highly polymorphic. (b) the HLA-D/DR molecules which have a more restricted tissue distribution and are present mainly on B lymphocytes and monocytes/macrophages. Typing for these antigens has become a tool of steadily increasing interest.	1
Patients with certain diseases have an increased frequency of particular HLA antigens compared to healthy individuals (Dausset & Svejgaard, 1977). This is also true for some dermatological diseases. The strongest appear to be the association between D/DR$_3$ and dermatitis herpetiformis (Solheim et al., 1977), but discoid lupus erythematosus (Stenszky, Nagy & Szerze, 1975), psoriasis (Williams et al., 1976), vitiligo (Retornaz et al., 1976) and lichen planus (Lowe, Cudworth & Woodrow, 1976; Halevy et al., 1979) have been found to be associated with certain HLA antigens.	2
The reasons for these associations are unknown, but probably involve HLA gene control of T cell immune responses (Thorsby, 1978). Immunological mechanisms are also involved in patients with scabies (Mellanby, 1944; Falk, 1980; Falk & Bolle, 1980a,b).	3
In view of these observations we looked for an association between scabies and any of the HLA-ABC antigens.	4

Reference: Swales, 1981, p. 17.

Here, we would like to deal with the question: "How do I begin to work with a subject-specialist informant?" by summarizing the conclusion of Selinker (1979), in which certain characteristics of a good subject-specialist informant are laid out:

1) The informant should be trained and competent in the technical discipline.
2) The informant should, in most cases, teach in the discipline, ideally with non-native speaking students.
3) The informant should care about the learning problems of non-native speaking students.
4) The informant should have a feel for technical language and be open to questions about the use of language.
5) The informant should be able to explain clearly what he believes scientists in the discipline do when they do "science".
6) The informant should see the potential importance of ESL/EFL and of EST research to his or her own teaching and should, ideally, be willing to read some basic EST literature.
7) The informant should be willing to give technical answers careful thought and reflection, and be willing to change his or her mind if the original formulation seems incorrect.

These considerations in Selinker (1979) focus primarily on the characteristics which a good specialist informant should ideally have. At this point, we wish here to expand our viewpoint to raise issues related to the process of dealing with the informant.

In a seminar on subject-specialist informants[9] held at the University of Michigan in the Fall of 1981 by Selinker, we found that some useful references were Agar (1977) from ethnography and various papers by Pike [eg. 1957, 1964 and Pike and Gordon (1972), Pike and Pike (1972)][10] from linguistics. Also, there is a useful discussion of the personal relationship one forms with an informant in Crapanzano (1980) and Craig (1979). In that seminar, we summarized our research by describing various problem areas that we felt were worthy of careful consideration on the part of ESP-colleagues needing to gain technical information in EST discourse. We present here a summary of that unordered and overlapping list, hoping that it will be useful.

1) How should one approach an informant? This step is essential to the task, especially in the EST/ESP area, where we are dealing with very busy people. Experience shows that approaching an informant directly may not get good results and that the best approach to an informant is usually through a mutually-respected third party who knows what ESP-people are doing.

2) How should one work with an EST/ESP informant who, in the typical case is very busy and often is highly paid? We feel that there should be careful "pre-informant sessions" and highly focussed "post-informant sessions". This would take another paper to detail, although some of this appears in Selinker (1979).

3) How does one ensure optimal cooperation on the part of the informant? We have found that the more valuable the study is to the on-going work of the specialist informant, the greater the possibilities for access to the informant are.

4) How should one deal with the fact that informants have their own strengths and weaknesses? One must be careful to fit an informant to the purpose of the study in terms of dimensions such as native/non-native, author/non-author, researchers/teachers, professional/learner, and so on.

5) How should one provide for the efficient use of a busy informant's time? In addition to the above points, one must know in advance, as much as possible, what one is looking for. For example, all analysts believe that knowledge of rhetorical information is crucial to the enterprise, but disagree about the value of grammatical information.

6) What types of questions should one ask an informant? The problem of biasing an informant is a serious concern. Agar (1980, p. 105 et passim) deals with this problem. In general, there is a balance to be obtained between open-ended questions which are imprecise but apparently non-biasing and more precise questions which are potentially biasing. It is our view that as one criterion for question types, the R/G analyst needs to gain finer and finer distinctions in terms of "delicacy" of analysis and that this appears to involve more rather fewer precise questions.

7) What about the EST/ESP person who may not even know what he or she needs to find out? In general, we need to gain the skills of refining questions and be open to new dimensions of information, being able and willing to shift frames when necessary. By using the informant's interpretation of the text, one can more readily draw on elements of the context that are relevant (see Pettinari, In Prep.).

8) How should one go about searching for "patterns in the data"? (Agar, 1980, passim). Agar and others discuss this problem in terms of "creating" vs. "discovering" patterns. As is widely recognized, one must be ready to "negotiate a new reality" with an informant.

9) How can the R/G analyst refine his/her developing technical knowledge in the particular discipline under investigation? One should establish a relationship that allows for continuing contact between analyst and informant, so that the analyst can "keep going back", since realistically this becomes an on-going process continuing over months.

10) When should tapes be analyzed? Often we have found that neophytes have bitter experience right here. In general, one should do this as soon as possible after the informant session in order to avoid forgetting context, which often involves loss of information.

11) How should one go about validating the work of an informant session? It is often desirable to gain "secondary data" by asking another informant to review the record (tape or transcript) of a session, keeping careful track of this secondary data in "playback sessions" (Frankel and Beckman, In Prep.). Detailing the characteristics of good secondary informants in R/G studies would take another paper.

12) In general, how does one deal with the fact that there is a breadth of knowledge necessary to this work which no one individual can possess? In addition to educating ourselves, a reasonable solution here is that we must be prepared to enter into team work, both in selecting and analyzing texts and, of course, in the practical applications themselves. This entails learning to talk to scholars in other fields.

13) What about the fact that not all techniques work on all occasions? One clearly needs to develop a repertory of techniques. The spelling out of these would require a work analogous to that in linguistics used in field-methods courses. Perhaps, graduate programs need to develop such courses for training ESP-practitioners.

14) Finally, what about the very real possibility that informants will disagree among themselves? (see Huckin & Olsen, In Press) This is an open-ended empirical research question concerning "classes of information" that are gained from informants.

III. CONCLUSION

In conclusion, we conceive of an Optimal Research Strategy of a pragmatic paradigm as having three main phases.[11] These are:

1) The prerequisite phase
2) The analysis phase
3) The application/use phase

A complete study of research design in R/G studies will have to integrate all these three phases. We have, however, chosen here to concentrate only on phase 1, the prerequisite phase. We feel that it is here that the field is in particularly dire straits. Bad starts in the prerequisite phase of an applied linguistics project are likely to yield incorrect or misleading analyses (phase 2) and, hence, lead to inapplicable or useless results in phase 3.

We review here our tentative proposal for the prerequisite phase—a proposal which we see as having five steps, not necessarily temporal. (See Section 2, issue #82/83).

1) Practical problem area and current tools.
2) "Quick and dirty" analysis.
3) Explicit initial assumptions.
4) Highly-valued texts.
5) Subject-specialist informants.

Throughout, we have emphasized two key concepts. First, the concept of highly valued texts. Texts must not be selected at random; rather they must be chosen as being viewed by practitioners of the field as central to that field and/or essential to the acculturation of neophytes into that field. Second, we have emphasized the concepts of teamwork and consulting and working with subject specialist informants. Clearly, if texts which are highly valued in our sense are to be chosen, an insider's knowledge not only of the subject matter but also of the sociology and politics of the field is required. Likewise, even in the prerequisite "quick and dirty" analysis, we feel that a subject specialist is essential to aid in the interpretation of texts.

This brief paper is the beginning of what we hope will develop into a much larger field of investigation—that of Research Design in R/G Studies. We have made here a particular proposal for the prerequisite phase. Whether this way of approaching the prerequisite phase is in fact optimal becomes, in the context of a general study of research design, an empirical question. We wish to emphasize that optimality is not just a matter of opinion, or aesthetics, but rather can be, and should be, tested in practice.

As R/G practioners try out a proposed Optimal Research Strategy, they will explore its strengths and weaknesses, no doubt finding reasons to modify it, perhaps radically. As an example of how this cycle of testing and revision proceeds, Selinker (179) may now be viewed as part of a proposal for Optimal Research Strategy, and Huckin and Olsen (In Press) may be viewed as an attempted replication in which the proposed informant techniques are tested, certain weaknesses are noted, and caveats issued. Thus, having research strategies themselves explicitly proposed as a part of the work of R/G research, rather than merely being set up ad hoc for each study, allows us to place Selinker (1979) and Huckin and Olsen (In Press) in a larger more principled research context and should allow more careful integration of practical applications in ESP contexts.

At a higher level, the adequacy of a proposal such as the present one, which concentrates on just one phase of an Optimal Research Strategy, can be tested for optimality by seeing how it and other — perhaps competing— proposals will eventually fit in with the as yet uncompleted work for the analysis and application/use phases, as the boundaries of studies in R/G research design, theory and application continue to expand.

FOOTNOTES

7. In Seales' scheme, the "move" entitled: "describing past research".
8. We especially wish to thank Wendy Gaylord, Paula Goodfellow and Pat Jensen for their patience and insights.
9. Participants in that seminar were: Lamice Abdunahleh, Charley Basham, John Haugen, John Mahar, Ele Merenghi, Cathy Pettinari and Pat Rounds. We had guests from several fields (including Fred Erickson, Charlotte Linde, Dwight Stevenson and Louis Trimble), each of whom discussed the use of informants to gain technical information in their own research area. With a group of that quality we were able to cover much ground and worked through gaining of information from informants in several disciplines, especially linguistics, ethnography and technical writing.
10. We repeat here a footnote from Selinker (1979), fn. 5, that has proven useful to colleagues and students:

    From among the many works in the vast tagmemics literature which allude to the "use of informants", I asked Professor Kenneth Pike to recommend those works of his which would most serve the reader of this Section. From among his suggestions:

    a. 'informant use in paragraph intelligibility' - Pike and Pike (1972)
    b. 're-working with an informant' - Pike and Gordon (1972)
    c. 'on informant use, discourse sequence, and situational roles' - Pike (1964)
    d. 'an experiment on translation with an informant, from the artificial to the natural' - Pike (1957)

11. See Selinker and Bley-Vroman (1980) for a discussion of these matters with reference to the hermeneutic concept of "cycle".

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BOOK REVIEW

Understanding Academic Lectures
Abelle Mason
Prentice-Hall, Englewood Cliffs, NJ, 1983, 133 pp. paper, $9.95

This text and the dozen casette tapes which accompany it present fourteen lectures for advanced and high advanced ESL students who are about to make the transition from full or part-time English programs to American colleges or universities. The text is also geared to students who intend to go directly into undergraduate or graduate programs from their own overseas classrooms. It is ideal as a part of an ongoing orientation program designed to foster successful participation in American institutions of higher education.

The text explores cross-cultural factors relevant to transition from one educational system to another. The first six speakers, professors in American universities and well-known in their fields, were born, educated and have taught in their own or other countries. Their lecturers form the first part of the orientation to academic listening and are commentaries on the formats, styles and purposes of lectures in educational systems used in other parts of the world. The lectures discuss the differences students will encounter in faculty-student relationships on the undergraduate and graduate levels, the expectations of both professors and students in the classroom, text-functions and testing and practical steps to classroom success. As the author herself notes, the lecturers are "insiders" who have first-hand knowledge and empathy born of their own experiences. In this part of Understanding Academic Lectures, the students are also introduced to lecture development through exercises that enable the students to determine the main points of the lecture sections. The students begin very informal note-taking exercises as they listen to each speaker. The cross-cultural view involves the students by speaking directly to the problem areas, known or newly identified, that will confront them in American academic settings.

The second part of the Understanding Academic Lectures lecture series, a preface, focuses on the role of lectures in literature and in an introductory science course. The third part of the text features five lectures of general interest. In these two sections, the students become more familiar with the points introduced in part one: study plans, topic headings, cue words and phrases, transitions, types of summaries and restatement. Also, the students are introduced to more formal outlines, analogy and rhetorical devices.

The lectures in Understanding Academic Lectures vary in format: there are interviews, panel remarks and a canned lecture as well as more formal lectures. Each unit offers a study guide, information about the lecturer, exercises, a listening guide (a gloss of idioms and vocabulary items in a particular context), and symbols and number notations that correspond to tone cues on the tapes. This special feature makes the location of a part of the lecture quite easy to find. The visual format is pertinant and is not overloaded.

The students who use this text/tape package cannot help but learn information useful to their adjustment and performance in academic courses. The material is carefully graduated, leading the students to a more sophisticated execution in lecture listening and note-taking. The subjects of the lectures generate a great deal of discussion in the listening class itself, a factor of importance in American classroom participation identified by each of the speakers in part one. For the instructor, there is a companion blue book containing the transcripts of the tapes.

Abelle Mason has done an outstanding job of organizing her very useful material. She has shown her sensitivity to the needs of international students in her selections of speakers and lecture subjects. This lecture/listening program is a most welcome addition to the market.

Reviewed by Beverly Durham
English Language Institute
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* * *

CLEARINGHOUSE UPDATE

The following titles have recently been added to the EST Clearinghouse. Please note, some of these titles appeared earlier as articles in the newsletter. They are listed now for your convenience in obtaining single article reprints.

Baltra, Liliana. "The Reading Shell and ESP Focus in the Secondary Schools". .35(d) .60(f)

Bley-Vroman, Robert and Larry Selinker. "Research Design in Rhetorical/Grammatical Studies: A Proposed Optimal Research Strategy". 1.00(d) 1.25(f)

Boys, Odette. "Introducing ESP at a Teacher-Training College". .90(d) 1.15(f)

Diaz, Francisco. "The Teaching of ESP in Northern Chile". .90(d) 1.15(f)

Diaz, Vladimir. "The Preparation of Bilingual Glossaries and Disctionaries in EST". .70(d) 1.00(f)

______________. "Selected Bibliography of Didactic Materials Produced in Chile". .90(d) 1.15(f)

Escorcia, Blanca. "Team Teaching in Economics". 1.15(d) 1.45(f)

Horsella, Maria and Gerda Sindermann. "The Transfer of Cognate Lexis: In Search of Facilitating Factors in EST". 1.50(d) 1.85(f)

Huerta, Teresa. "In Defence of Authentic Language in EST". .70(d) 1.00(f)

King, Phillips. "ESP in Colombia: An Overview". .70(d) 1.00(f)

LaTorre, Guillermo. "The Binary Structure of Complex Nominals in Technical Manuals". .70(d) 1.00(f)

MacAulay, Donald. "ESP in a Private English-Medium High School. An Interim Report". .35(d) .60(f)

Maldonado, Patricia R. and Arnal Guzman L. "Forms and Functions of the Noun Phrase in EST". .90(d) 1.15(f)

Olivares, Jorge. "ESP Teaching at Universidad de La Serena". .35(d) .60(f)

Ordonez, Claudia Ordonez, Clara Helena Lobo-Guerrero de Saba and Susan Horn. "Reading and Thinking in English (RTE): Further Developments". .70(d) 1.00(f)

Perez, Fresia. "In Defense of Authentic Texts II". .35(d) .60(f)

Perez, Nora. "Advanced Reading in ESP". .35(d) .60(f)

Vanegas, Luz. "Production of ESP Materials". .70(d) 1.00(f)

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English For Specific Purposes

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FROM THE EDITOR

This issue of the newsletter marks the beginning of the eighth year of the ESP Newsletter. Much has happened in the field of ESP since the newsletter began in 1977.

The most visible development is the change in the place of ESP. Once viewed as an esoteric step child, ESP is now a recognized discipline within the mainstream of English as a Second Language. Further, ESP is now making contributions to other fields such as second language acquisition and education. One example is that the 1984-85 Fulbright list indicates teacher training opportunities —in ESL and ESP, i.e. instrumental English— in several countries. Also in the educational realm, the Center for Applied Linguistics, through ERIC documents, has now prepared data searches for ESP and LSP. Further, ERIC has asked to review the entire holdings of the EST Clearinghouse in order to incorporate appropriate materials into the ESP data base. Eric is also reviewing issues of the ESP Newsletter for additional articles to include in ERIC document files. Indeed, the excellent articles by Chaplen and Flowerdew (see issue 77) on the team approach have already been entered as ERIC documents. The special issues on ESP in Chile and Colombia (issues 79, 80 and 81) are in the process of being entered. Future articles in the Clearinghouse and in the newsletter will automatically be reviewed by ERIC for possible inclusion. ERIC's purpose in becoming an additional source for these materials is to increase still further the availability of the materials to educators in general. The English Language Institute will still remain the primary source for copies of all articles contained in the Clearinghouse or printed in the newsletter.

Another measure of ESP's broadening influence is the increasing number of subfields within ESP, each with a growing body of literature. Medical English is developing its own newsleter, the EMP Newsletter (English for Medical and Paramedical Purposes). The newsletter is a quarterly bulletin available free of charge from the English Language Division of the Ministry of Public Health, Kuwait. The goals of the newsletter include: 1) providing names and addresses of people working in, or interested in, this field; 2) soliciting details of subscribers' professional and/or research interests in the field; 3) providing a forum for discussion of topics of reader interest in the field of EMP; 4) offering a "notice-board" service for subscribers; 5) publishing regular updates of the EMP bibliography compiled by John Maher of IALS, Edinburgh University; and 6) providing an opportunity for the publication of extracts of recent or current research in the field. For further information on the EMP Newsletter, contact: Nigel Bruce; English Language Division; Dept. of Medical Illustration and Teaching Resources; Ministry of Public Health; P.O. Box 5089; Safat, Kuwait.

Legal English is another subfield in which there is now increasing activity. Swales and Bhatia provided readers with a thorough overview of this subfield in a two part special issue (see issues 67 and 68). The May issue will offer the first part of an excellent article on the use of plain English in legal documents. Judging by requests for information coming to the Clearinghouse, private business is quite interested in this rapidly developing area of ESP.

English for Vocational Purposes now has a substantial body of literature. NEW PERSPECTIVES, VESL: An Annotated Bibliography by Gustavo Velasquez is an important addition to the resources for EOP. The bibliography attempts to introduce new perspectives, new concepts in an area that is fast becoming perhaps one of the most exciting within the field of ESL. While the bibliography focuses on EOP, it also includes references for all areas of ESP. The massive bibliography is well organized and easily updatable because all entries were made on a microcomputer. The Velasquez bibliography will surely become a standard reference work on EOP/VESL sources. Copies of this bibliography are available through ERIC; 1960 Kenny Road; Columbus, OH 43210; (614 486-3655). ERIC has another important recent resource for EVP. From the Classroom to the Workplace: Teaching ESL to Adults is a compendium of teacher resource materials which includes information on: 1) program design considerations for ESL; 2) teaching ESL in a multilevel classroom; 3) teaching ESL to competencies; 4) manpower/ vocational ESL; 5) teaching English to refugee adults; 6) ESL in the workplace; and 7) teaching ESL to non-literate adults. This resource is available from HBJ International; 757 Third Ave.; New York, NY 10017. The cost is 9.95 plus 5% postage and handling.

The number of local models of ESP curriculum evolving worldwide is still another indicator of the increased importance of ESP. The conference on "ESP in the Arab World", held last August at the University of Aston, drew together many professionals currently working throughout the Arab world. Participants came from 24 institutions in 9 Middle Eastern countries to share information on ESP activity. The conference addressed several major themes: 1) increased interest in education/classroom process; 2) continued ambiguity in the area of general/specific ESP; 3) administrative and political sides of ESP programs; 4) the shift of focus from content specifics to classroom tasks and management of learners. John Swales gave two introductory papers, both of which carefully delineated aspects of ESP development. The address entitled "A Review of ESP in the Arab World" presented a very careful analysis of the state of ESP in the Middle East, and particularly its development since an earlier paper written in 1977 entitled "ESP in the Middle East". (Editor's note: A volume of the proceedings of the Institute may be purchased by writing John Swales, Language Studies Unit, University of Aston in Birmingham, Birmingham B4 7ET, UK.)

Further development of an Arab model of ESP occurred at the follow-up regional conference: "ESP in the Sudan: General Principles and Local Features", held in January of this year at the University of Khartoum. Ann Johns and John Swales also conducted a series of workshops on ESP following the conference.

Recent reports on ESP activity in Europe also reflect the development of subfields and local models. The University of Tampere, Finland, hosted a conference entitled "English Oral Skills Workshop" in early April. Participants had the opportunity to participate in several sessions considering material exchange, future cooperation, mutual problem areas and student needs in a variety of ESP subfields such as Law and Political Science, Commerce, Education, Medicine and Technology.

ESP activity in France is also increasing, and I hope to share more information with you on the ESP efforts developing there in coming months.

ESP models specific to the needs of various Latin American countries also continue to evolve. I look forward to bringing you information on the state of ESP in Venezuela and in Mexico in this year's issues of the newsletter. We have made mention in previous issues of the national ESP project now underway in Brazil. Work in that project has now resulted in teaching strategies for reading that are applicable to general English courses. The ELT Journal, Vol. 38/2, features an article by Scott, Carioni, Zanatta, Bayer and Quintanilha, members of the ESP team in Brazil, on a procedure used to train students in efficient reading comprehension strategies by using a standard exercise which can be applied to almost any text. The article important is because the strategy can also be applied to developing listening comprehension.

* * *

"CHANGING THE TIMETABLE" - aspects of planning listening comprehension materials for a first year course in English for electrical engineers.

At the Higher Institute of Electronics, Libya, we have been developing an English course for B.Sc. students of electronics. Aware of the unsuitability of a previous first year general English course supplemented by "scientific" content from various coursebooks, we have spent the first semester devising and testing material which is now being fully used in the second semester and which we hope will form the basis of next year's courses.

As the language of instruction and examination at the Institute is English, we soon decided that the main needs of the students were the ability to follow lectures, participate in seminars, write laboratory reports and to recognize and use appropriate language functions like instructions, reports, advising and questioning. At the same time we wanted to introduce lexis and structures grouped around certain notions, e.g. movement, measurement, shape and position. We also felt that our students would have a fairly thorough knowledge of clause and sentence structure after six years of studying English at school with Arabic teachers, but would be uncertain about discoursal features of spoken and written English. Our aim was that our new materials would improve communication in other subject areas and help the student with his private study requirement. We were aware of a further area of difficulty associated with the lecturers themselves, many of whom were East European or Asian, and who, apart from having strong accents, varied a great deal in their "tactics" of classroom interaction e.g. cueing or elicitation techniques.

Our approach has been as far as possible to avoid a fragmentation of skills areas and to try to develop an integrated series of lessons with a listening comprehension focus. In this way we hope we have avoided distinctions of the general/scientific type, shown the relevance of different skills to a central "interpreting" ability and allowed ourselves flexibility in the choice of situation or topic. A typical unit of our core course will be described shortly; in addition we have prepared materials to supplement the core course in the needs areas described above. Firstly, a series of lecturettes has been taped and note-taking, listening comprehension and study skills exercises have been produced to accompany them. These would be used in the first week or weeks of the course to provide the students with an introductory awareness of lecture discourse. Thereafter self-access tapes and exercises on the discourse of individual lecturers at the Institute are available; by using short, modified extracts of actual first semester lectures we hope to provide specific practice in recognizing and responding to the interactive "tactics" of particular lecturers as well as further guided exposure to the lesson content of different subject areas.[1]

Secondly, a series of lessons on laboratory report writing would also be given early in the first semester, as students are expected to prepare their first reports at the end of the fourth or fifth week. Obviously considerable overlap between the two supplementary courses and the core course is desirable. In the absence of any pre-sessional English courses at the Institute though we feel the supplementary material is necessary.

Each unit of the core course lasts for five hours or one English teaching week. The situations and activities included in each unit were those we considered a student might well be expected to take part in while he was here, situations that would be of use to him in developing effective communication skills. Because we tried to give practice in features of spoken interaction which students were most likely to need in other complete activities, most of the functions taught were therefore asking for and receiving advice. The tapes usually took the form of a dialogue between teacher and student with the number of exchanges varying between seven and twelve. Here are the first six units:

1.	Following Directions	(7 exchanges)
2.	Learning People's Names	(8 exchanges)
3.	Changing the Timetable	(12 exchanges)
4.	Correcting a Computer Program	(8 exchanges)
5.	How the Galvanometer Moves	(9 exchanges)
6.	Using the Oscilloscope	(9 exchanges)

We tried to keep the tapes as authentic as possible regarding speed and range of accents while avoiding negative interference that would obscure what was actually being spoken. The first lesson in each unit would pre-teach items of structure and lexis as a preparation for hearing the tapes. The tape would then be played in the language laboratory and a gist listening exercise would be completed; usually completion of a diagram, tracing directions on a map, labelling, etc. This would be followed by intensive listening activities; listen and repeat model sentences followed by missing word completion and intonation transcription. The third lesson would be a reading comprehension using a transcript of the tape. Questions would be pre-set, the tape played and read in transcript simultaneously. The questions could be varied, sometimes the teacher would stop the tape and check question various lexical items. The fourth lesson would involve a written exercise linked to the transcript. Sometimes cloze passages or rhetorical transformation exercises were used. Finally a communicative activity using either pair or group work would be attempted when ideally we would see the students using or putting into action what they had learnt that week. Often these activities involved information transfer e.g. issuing student A with a sheet containing timetable A and a blank timetable; issuing student B with timetable B and a blank timetable B, then asking them to instruct each other to complete the blank timetables. Instead of or following this they could be given very similar but slightly different timetables and asked to find the differences by question and answer. The advantage we see in this approach is that language use is firmly contextualised in relevant situations, skills are not taught in isolation from each other but as aspects of a unitary communicative act.

Where the situation chosen, as in tapes 4, 5 and 6 is subject specific, the tapes are made in close consulatation with the relevant lecturers. Items of structure are sometimes planted at stages in the dialogue as it is being worked out and others occur regularly enough to demand inclusion at the pre-teaching stage. Thus the structural and lexical focus of a dialogue is both a mixture of each teacher's decisions about what to include e.g. positional phrases, question tags, use of should and shouldn't and of what the discourse structure itself suggests is necessary. We have found that as well as introducing new structural items we are often re-activiating knowledge of structure learnt in the schoolroom and contextualising it. This gives the students' confidence. Here is a list of the items we found suggested themselves or were suggested by the teacher as necessary to pre-teaching the first five dialogues:

1.i) Use of just as an adverb of time: just now, at this moment, and as a limiter: just a little bit, only a small glass. ii) Directional phrases, second on the left, straight on, turn right, etc.

2.i) Use of positional phrases, next to, on the right of, between...and.. ii) Use of question tags. This is..isn't it: he's...isn't he. iii)present simple and present continuous tenses.

3.i) "Have" as main verb and as auxiliary ii) Timetable abbreviations, Engl (English), I (instruction), etc. iii) Use of from..till to indicate duration. iv) Use of sequencers, so, then, finally... and use of "that's all, Is that all?"

4.i) Use of should and shouldn't to ask for and give advice. ii) Use of positional words; between, after, before. iii) Use of contractions in spoken form; there's, that's, here's, it's. iv) Question and answer pairs; Again/Yes, again...Here/Yes, here...Is that all/That's all.

5.i) Descriptions of movement, around, through, raise, slide. ii) Use of positional phrases, on the right, at the bottom, on top. iii) Simple present and simple present passive; is passed by, is attached by... iv) Answer phrases, That's it; That's right; It is; It might be.

(to be continued in May)

* *

TEACHING ENGLISH THROUGH AND FOR THE READING OF LITERATURE

"He asked her what book she was reading.
'*The Idiot*. Do you know it?'
'No. What's it about?'
'It's a novel'
'I'd rather read the truth', he said.
'It *is* the truth.'"

From *The Assistant* by Bernard Malamud

One popular view of literature is that it is hardly "serious" reading, since so many different interpretations can be given to literary texts: if centuries of criticism still haven't arrived at a definitive appraisal of, say *Hamlet* or *Don Quijote*, can *anything* worthwhile be said about them? A corollary of this view is the attitude that literature teachers so often come up against in their students: any interpretation of a text is as good as any other, for it is all a matter of "subjective appreciation". And indeed, even the most dogmatic critics would have to admit that many different readings can be (and often have been) offered of any of the classics of world literature. On the other hand, in this century a number of scholars in language studies -linguists, semiologists, anthropologists and even "sociologists of literature"- have insisted on the urgency of studying literary texts in a *scientific* way. This might lead us to think that something positive and categorical could finally be said about them. Will teachers one day be able to present their students with a definitively conclusive analysis of a given sonnet, novel or play?

On the contrary, the more we learn about the application of lingustic tools to the study of literature, the more evident it becomes that communicative function in it is a many-faceted, mult-level edifice, that a literary text should be seen as a practically inexhaustible source of meaning. But this very complexity has become an argument in favor of teaching it, especially to the language student. Indeed, my own experience has proved, a second language can be taught through and for the reading of literary texts. And in those cases where the students will need to acquire both productive and receptive skills, this type of "literature-reading comprehension course" should be an invaluable aid, for the study of literary discourse allows for a particularly rich and deep understanding of the elements that intervene in any communicative act.

For several years now I've been working on a project aimed at producing materials for teaching English to Spanish-speaking literature students. The materials cover two semesters and are based on excerpts from XXth Century English language narrative and dramatic works. In producing them, it was necessary to explore what literary discourse was, to reach some understanding about the specificity of literary texts.

We shall attempt to describe some features of what constitutes literary language. Different types of discourse appear in a continuum; there is not a clear-cut line at which prose becomes fiction or an essay begins to be literary. But we recognize "literariness" in every-day speech, for instance when someone, moved by emotion or striving for a comic effect "waxes eloquent". Let us try to recognize in a short fictional passage some concrete linguistic elements that might provide a basis for the intuition that a given text is indeed literary. The passage is used, with some minor changes, in my first-semester materials:

> In at least two of the several impenetrably euphemistic "Letters from Central America" which Charlotte wrote during her stay here and tried unsuccessfully to sell to The New Yorker, she characterized Boca Grande as a "land of contrasts". Boca Grande is not a land of contrasts. On the contrary, Boca Granda is relentlessly "the same": the cathedral is not Spanish Colonial but corrugated aluminum. There is a local currency but the American dollar is legal tender. The politics of the country at first appear to offer contrast, involving as they do the "colorful" Latin juxtaposition of guerrillero and colonels, but when the tanks are put away and the airport reopens nothing has actually changed in Boca Grande.

From *A Book of Common Prayer*, by Joan Didion

All text is made so by a number of cohesive and coherent links. In this short paragraph, among others, cohesive links include reference—"Charlotte" becomes "she"—conjunction- "On Contrary"- lexical cohension -"Central American" functions as a superordinate of "Boca Grande", "the country" is a general word also standing for the name of the republic. In what respects to coherence, we have an informative first sentence which includes a "characterization" or description; a rebuttal of this description in the second one; an expansion of this rebuttal in the third; three examples in substantiation of the rebuttal in the second half of the third sentence, as on the fourth and fifth. There is, furthermore, just as there should be, a perfect correspondence between cohesion and coherence. The phrase "On the contrary" is a classic example of the adversative conjunction, and therefore a perfect realization of the illocutionary act of refuting. The narrator is obviously disagreeing with Charlotte, who, as a tourist with a mind laden with cliches, saw only the surface of what she chose to see. But wait a minute. Tourist? Cliches? Superficiality? Where does it say so? How do you get this image of a willful, rich, superficial American tourist? As for Boca Grande, why do we see it as amorphous, flat, cruelly lacking in character? And why is it clear that it hurts the narrator that it should be so?

In the first place, there are two surprising uses of words in this text. When we are told that Charlotte's euphemisms are impenetrable and that Boca Grande is relentless in its "sameness", part of the narrator's attitude to both is expressed: she (for the narrator is also an American woman) would like to get through to Charlotte through the mesh of cliches she spouts about Boca Grande, but finds it impossible; she feels personally hurt by the fact that Boca Grande never changes.

Furthermore, what is explicitly said about Boca Grande is not all that the paragraph conveys. Two of the phrases in quotes in the text could have been lifted from a travel agency leaflet advertising a package tour; the reference to Charlotte's stay reinforces the impression that she is a tourist seeing Boca Grande through rose-tinted glasses. In addition, the use of the word "colorful" is clearly ironical; none but the very blase and self-absorbed would see "local-colar" Latin-ness in guerrilla warfare, even if orchestrated by hidden powers.

Besides, the last three sentences, ostensibly examples offered in support of the view that Boca Grande is relentlessly the same, show a rather interesting parallelism: the word but appears in each, contrasting two pieces of data. In each sentence the clause preceding this word expresses one feature that could suggest the picturesque. But the clauses (or in the first sentence, the group) that follow it do more than suggest someness and deny that changes occur in Boca Grande. If we add up their information, it begins to appear that a strong American presence in the political affairs of the republic is suggested. On the other hand, the first of these three sentences suggests poverty, more of mind and cultural identity than of economic means - what traditions, what permanent cultural traits can a country have, when its very cathedral is made of corrugated aluminum? This image is underlined by the official status of the foreign currency and the farcical repetition of political conflict, conveyed by the simple present tense of the verbs "are" and "reopens" a tense normally used for habitual or repeated action.

Thus we see that, beyond the illocutionary force that is evident at a first reading, there are other shades of meaning expressed. The passage, which appeared to be an attempt to refute one view of Boca Grande, can be shown to suggest a number of characteristics of the country and its visitor (as well as the narrator herself, whom we barely approached). The function of the cohesive link but, at first sight a lexical reiteration of the presence of contrasting views, is also that of a structural signal that more than the country's lack of contrasts is being portrayed.

Obviously, further nuances can be inferred from this passage applying the same methods, or other meanings drawn. As long as they are substantiated in concrete evidence, they are as valid as my conclusions. It is not exactly ambiguity that we find in literary texts, but multiplicity of levels and shades of meaning. I believe this trait to be a surer test on "literariness" than the duplicity of levels at which the originator of a message functions, since this complexity is also found in comics and many advertisements.

This type of approach to literary texts, rather than support the view that "anything can be said" about them, shows that many shades of meaning can be expressed in literature, and that we are learning to recognize the mechanisms by which this occurs. It also provides the basis for using literary texts in teaching a second language: the complexity of literature can be seen to be grounded on tangible elements that any reader of average intelligence can be taught to observe. This makes the reading of literature an invaluable tool in making students aware of the elements and functions at play in any act of communication.

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* * *

RESOURCES/ANNOUNCEMENTS

The International Center for Research on Bilingualism at the Universite Laval in Canada has recently updated it publications list. The current list covers eight series of resources:

Series A: Basic Studies, synthesis, proceedings
Series B: Documents, essays, theses, article
Series C: Outside Publications

Series D: Collection Studies in Bilingual Education
Series E: Inventories
Series F: Bibliographies
Series G: Research reports
Series H: Brief studies on language contact throughout the world

The pubications are available from different sources, and the update clearly notes the addresses for obtaining the various publications.

For further information, write: Centre International de Recherche sur le Bilinguism; Pavillon Casault, 6e etage sud; Universite Lavel; Quebec; Canada - G1K7P4.

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FREE MATERIALS FROM ERIC

The following minibibliographies have recently been updated:

- Developing Communicative Competence
- Innovative Methods in Teaching Foreign Languages
- Language Attitudes of ESL Students
- Notional-Functional Syllabi
- The Silent Way
- Teaching and Testing Listening Comprehension in ESL
- Teaching Pronunciation in ESL

Also available is a fact sheet entitled: "Adjustment Problems of Foreign Stuldents in U.S. Colleges and Universities". This and the minibibligraphies are free in single copies, which may be photocopied. A list of other fact sheets and minibibliographies is available. Writer to User Services, ERIC/CLL; 3520 Prospect Street NW; Washington, DC 20007.

The 5th European Symposium on LSP
August 26th - 30th 1985
will be held in Leuven, Belgium
Address: Instituut voor Levende Talen
Katholieke Universiteit Leuven
Vesaliusstraat 21, B-3000 Leuven (Belgium)

New Journal

Canada TESL has just begun a national journal devoted to the teaching and learning of ESL. The inaurural issue of this bi-annual publication offers several well-written and thoughtful articles. "Exporting Language Teaching Methods from Canada to China" outlines three problems caused by trying to adapt the teaching methods of one country to the conditions of another country. The author, Gloria Sampson, indicates that these problems "stem from not seeing development as multidimensional, from confusion about the relationship between scientific and educational theories, and from the worldwide presence and acceptance of technocratic imperialism." "Learner Needs, Teacher Skills and Class Resources", by Donn Byrne, concerns itself with trying to show how to achieve a balance in teaching between 1) teacher input and learner input, 2) teaching language as form and teaching language as function and 3) whole class teaching and small group learning. "Bringing Real Language into the Classroom: The Re-tell activity", by Adrianne Sklar and Lili Ullmann, explains an activity focusing on involving ESL learners in an interactive process and which integrates the four skill areas. "The Multi-Level Classroom" by Robert Courchene proposes a listening activity that uses multi-level tasks in the language laboratory to accomodate the needs of the multi-level classroom. "Phonological Processes in ESL Five-Year Olds" by Terry Piper reports the results of a study investigating the acquisition of the sound system by ESL five-year-olds.

In addition to the feature articles, the journal also includes descriptions of practical classroom activities, a section for reactions of readers to articles and reviews in the journal and finally a section for book reviews. We congratulate Canada TESL on the journal and look forward to many informative articles appearing in it in the coming years. For more information about subscriptions, write: Subscriptions Secretary; TESL Canada Journal; Faculty of Education; McGill University; 3700 McTavish; Montreal, PQ H3A 1Y2.

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English For Specific Purposes

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CASE FOR PLAIN ENGLISH - Part 2

Robert Eagleson - University of Sydney

There is still a lot to learn about how members of the community handle and interpret language and about which forms and structures cause most difficulty. But the evidence is growing and even now we can offer guidance on certain structures and forms.

Importantly these structures occur frequently in official and legal documents, and if we can control them, we can go a long way towards reducing the difficulty of material for the general reader. By the same token whatever we do with language will be of value only if we also achieve clarity of concept and of organization.

VOCABULARY

1. Specialist Terminology

Specialist and unusual terminology is an obvious source of difficulty in any document. Frequently, however, our use of a particular term may spring more from custom and arbitrary choice than from real merit, and it is often possible to replace it with an alternative from the general vocabulary, for example, school instead of educational institution, car instead of vehicle, order instead of requisition, end instead of terminate, and live instead of reside.

We must be particularly careful of terms which persist at an official level but which have become obsolete in general practice. Again substitutions can generally be found, for example, rented house instead of demised premises, its contents instead of the contents thereof.

If the use of a technical term is unavoidable, it should be accompanied by an explanation, which will usually be in the form of a sentence, for example:

> ...total replacement value (This means the cost of replacing any damaged item with a new item).

2. Elegant Variation

There is a strong temptation to use several terms to refer to the one object, etc., in order to avoid dull repetition. But this elegant variation, as it is called, can be a cause of confusion in general writing, even though it may have its value in more literary works.

Consider:

> Most of the indigenous languages of the Americans have an inflectional pattern for verbs... In very few languages, however, does the parallel with the Indo-European passives hold, and it is quite rare to find a language on the west side of the Atlantic that permits... (Grimes, J. Thread of Discourse p. 147).

The reader is forced into re-interpreting the west wide of the Atlantic as "the Americas' before he can grasp that the same region is being referred to. Perhaps even more common is the type of variation we have in:

> a new volume has just appeared on legal drafting. The book covers all aspects of the subject and provides many a practical guideline for draftsmen. The opening chapters of the tome offer a brief account of the development of legal language.

Again the reader has to recognize that the same item is being referred to despite the fact that it is given three different names, volume, book and tome. In an endeavour to avoid monotony all we

If the Policy has been renewed...

If you have renewed the Policy...

The passive voice is particularly troublesome in reduced relative clauses:

...any further written statements made by you...

any person so injured is entitled

6. Full Versus Reduced Relative Clauses

In a reduced relative clause part of the structure has been omitted:

...any difference due to the acquisition of the replacement vehicle will be paid...

The reader has to retrieve the words which is before due to. We make his task of comprehension easier if we save him the trouble:

...any difference which is due to...

Similarly the example in point 5 might read:

...any person who has been injured in this way...

7. Nominalisation

In nominalisation we convert a verb into its related noun form. Thus apply becomes application, recognize becomes recognition, know becomes knowledge. The practice is very common in official writing. Compare the next sentence in which the verb is retained and the one after in which the derived noun is used:

You applied on our Proposal Form.

Your application was made on our Proposal Form.

Nominalisation has two side effects: it turns a process or action into a seeming object, and it reduces the sense of agency. Frequently, in fact, the agent is not expressed:

...upon renewal of this policy...

which means you renew this policy.

Where the reader might expect to have an event set out in which he is engaged in doing something, nominalisation works against this expectation by turning the action into a static description of abstract entities. The statement loses the force of concreteness.

Nominalisation leads to many cumbersome formulas which can be replaced by simple verbs:

give consideration to -consider
conduct a review -review
make a suggestion -suggest
make a reference to -refer to
take (an) action -act
affix your signature -sign

8. Complex Noun Strings

We regularly use nouns as modifiers, as in aircraft carrier, and traffic policeman, in which aircraft and traffic modify the nouns which follow them. It is possible to use more than one noun as a modifier and produce an elaborate string, but difficulties in interpretation increase every time we add another noun. The result may be ambiguity:

English history teacher.

More often it can be incomprehensibility:

Roof rock bolt bend integrity tester development.

Indeed there are dangers in using too many modifiers of any sort in the one string as this example from an Austrian economic research report illustrates:

Risk-weighted net present values of estimated future before tax cash flows.

The message is far too dense and any reader would have difficulty in unravelling the levels of modification. The practice is common in newspaper headlines and financial statements but it needs to be avoided.

9. Multiple Negatives

Most of us would rarely produce a collection of negatives as in the following extract from Hansard:

> I do not say there are no persons in Rhodesia in possession of Australian passports who are not performing functions which have no relations to the policies of that regime.

It demonstrates forcefully the heavy burden of interpretation which strings of negatives place on a reader. We should then be on guard against less extreme but more common instances, such as not uncommon, not impossible, not-reject, not disagree. Each one forces the reader into at least two steps: not unlikely = not + (not + (likely)). Wherever possible, we should use a positive version.

For example:

> You will not pass the course unless you complete all the requirements satisfactorily

reads more easily as:

> You will pass the course only if you complete all the requirements satisfactorily.

Here we are emphasising what the student must do - and this is what he needs to know rather than what he should not do.

10. Double-pronged Questions.

This language structure has particular relevance in questionnaires and forms. It is illustrated by:

> Are you a diabetic and under private medical treatment?

Patricia Wright has supplied the following example from the U.K.:

> Are you over 21 and under 65? Yes/No

Some respondents answered yes to the first part and no to the second. It is better to ask separate questions:

> Do you suffer from diabetes? Are you under private medical treatment?

(continued in July)

* * *

THE ENGLISH OF MEDICAL LITERATURE RESEARCH PROJECT

Partial Results

ABSTRACT

This paper discusses the frequency of occurrence, average length, and proportion of compound nominal phrases (CNP) in English scientific and technical literature (Medicine and Engineering) as compared to their frequency in general English (GE). To this end, the CNPs in a linguisitic corpus of 10 TE, 10 ME and 10 GE texts of two thousand words each have been analyzed. A t-test has been performed and the following results have been obtained: a) CNPs are significantly more numerous in TE and in ME than in GE; b) although the CNP average length (i.e., the number of lexemes involved in each CNP) is essentially the same in these kinds of prose (2.61 and 2.55 vs. 2.51), their relative distribution is quite different and c) the more specialized the texts, the more frequent and the longer the CNPs.

As this morphosyntactical register marker has proved to present (for foreign scientist) a major difficulty in the reading of TE litarature and to hinder considerably the overall comprehension of the text, we further elaborated on the linguistic and extralinguistic reasons for using CNPs in technical writing, carrying out a morphological comparative study with CNP in Russian, French and Spanish scientific prose.

We are presently exploring the syntactical and semantic properties of a sample of medical English compound nominal phrases in order to propose transformational derivations within generative semantic theory which would make explicit the range of possible semantic structures that can be productively and predictably associated with a given surface compound word. The results so far obtained on this matter ar

very encouraging.

1. ON THE LEXICAL LEVEL

The statistical tests performed on the 120,000 words drawn from our corpus allowed to successfully split the medical English lexicon into three superimposed strata:

a. Basic English: that part of the lexical common to all kinds of writing whether it be scientific, technical or literary;
b. Fundamental medical English: the core language of medical English literature made up of those lexical items frequently occurring and widely spread across medical specialties;
c. Specialized medical English: made up of specialized terms particular to a given discipline.

So far we have carried out an extensive notional/rhetorical analysis of the fundamental medical English layer only, as, according to its definition, it contains the words and/or expressions whose mastery by foreign medical graduates should be given priority.

One thousand four hundred and twenty roots have been recorded above the level of statistical significance (F >= 0.05). These roots have been distributed according to the notional categories mentioned in the table herein included, viz.,:

a. the verbal roots are made up of those items which describe the general methodology of scientific inquiry (description, analysis, comparison, cause-effect relationships) as well as those which indicate the evolution of diseases and/or the patient's clinical sate;
b. the noun roots consist of the language of general medicine and that of mathematics and geometry;
c. the adjectival roots describe disease symptoms and signs, and the quality and/or procedures of treatment;
d. the function words which mainly express causality, opposition and purpose.

We belive that, by applying those findings to the teaching of medical English for professional purposes, appropriateness of the eventual materials and viability of the program will be ensured.

We are currently carrying out a somewhat similar study of the Specialized medical English lexical stratum but no definite resuls have been obtained so far.

The Core Language of Medicine: Grammatical Categories and Rhetorical Function

Grammatical Category	Rhetorical Function and/or Notion	Location in the Scientific Text
Verbal Roots	Description of process and methodology of investigation. Classification. Cause-effect relationships. Analysis (evolution of disease and/or patient's clinical state).	Introduction Summary. Methods. Results/discussion
Noun Roots	General Medicine. Mathematics/geometry. Medical sub-field.	Throughout
Adjectives	Description of disease, symptoms and signs. Quality of treatment of procedures	Throughout
Function Words	Causality. Opposition and contrast. Restriction. Linking logical sequence of ideas. Contrast, comparison. Purpose	Throughout

II. ON THE MORPHOSYNTACTICAL LEVEL

Because of the fact that compound nominal phrases proved to be the major impediment in understanding a scientific text (at the post-graduate level), we decided to give priority to the study of this morphosyntactical feature of the medical English register. We thus carried out a rather extensive study of the compound word process in medical English, technical English (Engineering literature) as compared to general English. The results of this investigation are summarized in the abstract of a paper entitled "Compound Nominal Phrases in scientific-technical literature: proportion and rationale" which has been presented at the International Symposium on LSP, Eindhoven, Holland, August 1982. This paper has been published in Reading for Professional Purposes: Studies in Native and Foreign Languages. A.K. Pugh and J.M. Ulijn (eds), published by Heinamann, London, 1983.[3]

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FOOTNOTES

[1] A complete listing of the fundamental medical English stratum appears in the appendix of a paper entitled: "The core language of English medical literature: Classificatory framework and rhetorical function (a statistical approach)". This paper has been presented at the "III Encuentro de investigadores y docentes de la linguistica", Caracas June-July 1982 and has been published in Reading in a Foreign Language, Vol. 1., No 1, March 1983, pp. 54-64.

[2] This article has been selected by the ERIC Clearinghouse on Language and Linguistics and appears in the ERIC microfiche system under the NoED 232 427, December 1983. This contribution was announced as well in a recent issue of Resources in Education.

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CASE FOR PLAIN ENGLISH - Part 3

LAYOUT

An attractive design is a vital aid to the acceptance of material. This does not necessarily mean an expensive or lavish production, but does call for some common sense in the presentation of a document. One in which everything is jammed together and the type size is ridiculously small is going to complicate the task of reading. Again, research is now providing us with useful information in this area.

1. Type Size

Much depends on the typeface, but 8-12 points have been found to be the most convenient for the body of the text. Sizes above as well as below are not so easy to read.

Again the age of the audience must be considered: with an older group the larger 10 or 12 pt. should be used.

Leading between lines must also be watched. Too little can give the page a crammed appearance and make the text hard to read; too much can separate the lines and destroy a sense of continuity.

2. Capitals and Lower Case

Text in all capitals is less easy to read than one in capitals and lower case. The variation in the shape of letters in lower case facilitates recognition of the letters.

3. Length of Line

The ideal length of line has been found to be 50-70 letters, depending on typeface and size. Shorter lines increase the number of eye movements, while longer lines make it hard for the eye to keep on the correct line.

4. Margins

Justification of lines on the left margin is common and is followed both in handwriting as well as in printing. Justification on the right margin is also regularly adopted in printing, but is not essential. Indeed texts with unjustified right margines would seem to be slightly easier to read.

5. White Space

Ample white space is essential in any document. It should not be seen, however, as waste space but can be applied skillfully to the needs of a document. Sectional headings, for example, can stand out if they are placed on their own in a margin and so can guide the reader more easily to the organization of the material.

6. Layout and Language

Layout may interplay with language to great advantage. For example, the listing of conditions may help to overcome the difficulties associated with complex sentence structures, as in:

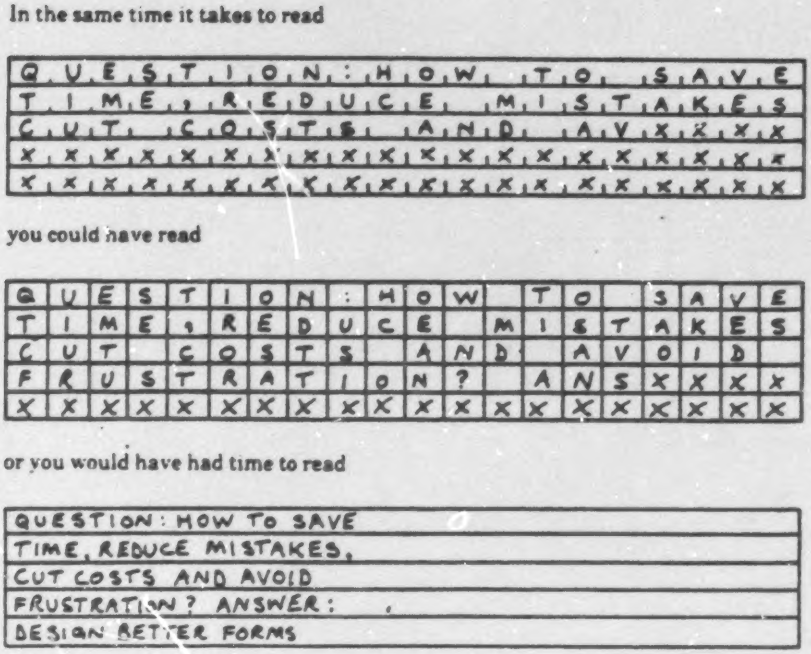
> In providing you with "cover for your car" we will pay you the Agreed Value which is indicated in the Current Schedule if:
>
> (i) Your car is stolen and not recovered; or
> (ii) Your car is damaged accidentally and the estimated cost of repairs exceeds the Agreed Value.

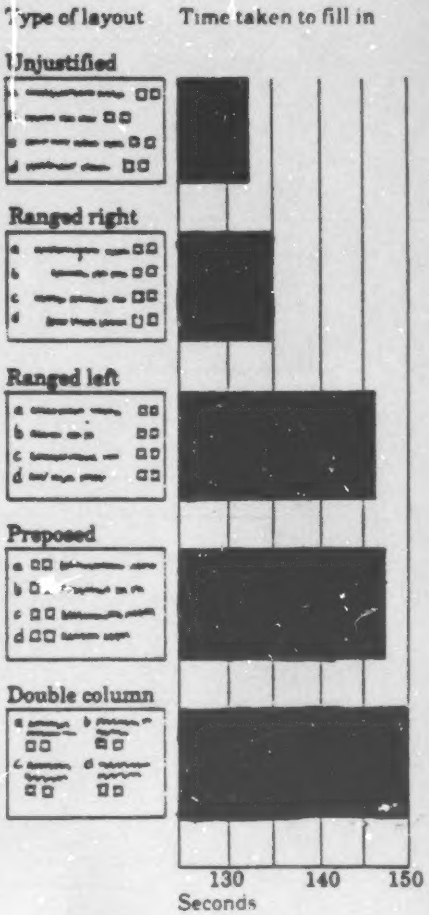
(See Grammatical Structure above).

We can also readily see how design can help to support and highlight organization.

FORMS

Very important reseach has been undertaken in the design of forms, and notably by Dr. Patricia Wright of the Applied Psychology Unit of the Medical Research Centre (U.K.). To give just two examples * :


In the same time it takes to read
QUESTION: HOW TO SAVE
TIME, REDUCE MISTAKES
CUT COSTS AND AVXXXX
you could have read
QUESTION: HOW TO SAVE
TIME, REDUCE MISTAKES
CUT COSTS AND AVOID
FRUSTRATION? ANSXXXX
or you would have had time to read
QUESTION: HOW TO SAVE
TIME, REDUCE MISTAKES,
CUT COSTS AND AVOID
FRUSTRATION? ANSWER:
DESIGN BETTER FORMS



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* For more details see Gobbledegook, by Tom Vernon, published by the National Consumer Council, 18 Queen Anne's Gate, London SW1 H 9AA.

BEYOND READABILITY FORMULAS

What is being proposed here clearly and properly goes beyond what is offered by readability formulas. With their concentration on mechanical details - such as word and sentence length - these formulas provide only a gross measure of difficulty. They ignore many of factors that are crucial to comprehensibility, such as concept, organization, design, syntactic complexity, audience. At most, formulas can serve only as starting points, quick though inexact indicators of the relative difficulty of a document. They do not provide precise procedures for its improvement to ensure that it reaches a high level of comprehensibility. For this we must pay attention to the wider range of principles which we have been discussing.

EVALUATION

Writers of official documents, heads of department and the like are usually expert readers. Moreover, they are very familiar with the concepts and the administrative procedures which they are describing. It is difficult for them, therefore, to be good judges of the level of difficulty of a document despite all the efforts they take to draft it in Plain English.

Consequently evaluation must be seen as an essential component in the construction of documents. We must test their suitability with members of the public who will use them. Equally illuminating can be the experiences of officers who handle enquiries from the public and they should be encouraged to collect data on problem areas.

ATTITUDES TO LANGUAGE

Dr. Christopher Turk at the University of Wales Institute of Science & Technology at Cardiff conducted the following experiment among groups of scientists:

"Below are two reports on the same experiment written by different scientists, for confidentiality here called Smith and Brown. Read the passages and then answer the questions below.

Brown's Version

In the first experiment of the series using mice it was discovered that total removal of the adrenal glands effects reduction of aggressiveness and that aggressiveness in adrenalectomised mice is restorable to the level of intact mice by treatment with corticosterone. These results point to the indispensibility of the adrenals for the full expression of aggression. Nevertheless, since adrenalectomy is followed by an increase in the release of adrenocortrophic hormone (ACTH), and since ACTH has been reported (P.Brian, 1972) to decrease the aggressiveness of intact mice, it is possible that the effects of adrenalectomy on aggressiveness are a function of the concurrent increased levels of ACTH. However, high levels of ACTH, in addition to causing increases in glucocorticoids (which possibly accounts for the depression of aggression in intact mice by ACTH), also result in decreased androgen levels are characterised by decreased aggressiveness the possibility exists that adrenalectomy, rather than affecting aggression directly, has the effect of reducing aggressiveness by producing the ACTH-mediated condition of decreased androgen levels.

Smith's Version

The first experiment in our series with mice showed that total removal of the adrenal glands reduces aggressiveness. Moreover, when treated with corticosterone mice that had their adrenals taken out became as aggressive as intact animals again. These findings suggest that the adrenals are necessary for animals to show full aggressiveness.

But removal of the adrenals raises the levels of adrenocorticotrophic hormone (ACTH), and P. Brian found that ACTH lowers the aggressiveness of intact mice. Thus the reduction of aggressiveness after this operation might be due to the higher levels of ACTH which accompany it.

However, high levels of ACTH have two effects. First, the levels of glucocorticoids rise, which might account for P. Brian's results. Second, the levels of androgen fall. Since animals with low levels of androgen are less aggressive, it is possible that removal of the adrenals reduces aggressiveness only indirectly: by raising the levels of ACTH it causes androgen levels to drop.

Questions

1.1 Which passage is more interesting?
1.2 Which passage is more difficult to read?
2.1 Which style seems more appropriate for scientific writing?
2.2 Which style is more precise?
3.1 Which writer gives the impression of being a more competent scientist?
3.2 Which writer inspires confidence?
3.3 Which passage shows a more organized mind?
3.4 Which passage seems more objective?
4.1 Which passage seems more dynamic?
4.2 Which passage seems more stimulating?
4.3 Which writer has more consideration for his readers?
5.1 Any further comments about the passages you may wish to make."

What is significant is that all groups favoured Smith's version for all questions except (2.1). The result is perhaps not altogether surprising. Because of the high value that has been placed on literacy in our society, the written language has come to be seen as a more refined and polished form. As a result when we come to write we frequently feel that we have to strive for some higher standard of expression, for something different from the way in which we use language in speech. This distracts our attention for the subject-matter and imposes an artificial style - and, as we have seen with scientists in Dr. Turk's experiment, often a style that we do not really value. It is artificial and contrary to our normal practice. It is normally inflated in quality, often somewhat archiac, imposed on us by custom, not adopted by natural instinct. We unthinkingly accept a burden on ourselves from some vague notion that this is how our writing ought to be.

In working with lawyers in re-writing projects, I have had a number express the fear of "What will the judges think"? As a result their major pre-occupation was trying to satisfy the judges. But this was a real will-o'-the-wisp for no-one had asked the judges what they wanted. When I asked - admittedly only a couple - I found that there was not great commitment to legal language as we have it today. One judge confessed that he had not been able to bring himself to read through his old-style insurance policy: he preferred to chose a reputable company and trust it! Our experiences are reflecting this outlook: Plain English insurance policies have appeared in court and they have not been ruled out or generally condemned. Fears of disorder have proved unfounded.

What we need to do, then, is to break away from false attitudes to language. In particular we must not let current inept practice and ancient custom be our yardsticks. Nor must we let the love of the inflated style among others tempts us away from that clarity of expression which will help our real audience. Our concern should be to impress through excellence of communication and not just flourishes of style. Such a concern, of course, will keep our attention closely on the needs of our audience, and hence we return to a requirement made in an earlier section of this paper.

THE REALITY

If we are faced with such a passage as:

> EXCESS
>
> Notwithstanding anything herein contained the Insured in respect of any one happening which, subject to the Terms, Exclusions and Conditions hereof, gives rise to a claim under Sections 1 to 5 inclusive, 7 to 10 inclusive shall first bear the amount if any stated under the heading "Excess" in the Schedule of this Policy or in any endorsement hereon or if the Policy has been renewed, the amount of "Excess" stated in the current Renewal Certificate and in addition the amount of the Excess shall be increased by an amount of $100 in the Insured Vehicle (or any vehicle referred to in Sections 7 or 8) is being driven by any person under the age of 25 years provided that this additional amount of $100 shall not be payable where either the person then driving the Insured Vehicle shall be charged with the theft of or illegally using the Insured Vehicle or where the damage to the Insured Vehicle consists solely of breakage of its windscreen caused by a stone or other object thrown up from the roadway and provided further that the total amount to be born by the Insured shall not exceel the maximum permissible by law.

do we not move towards something like this either for our own or someone else's illumination:

> EXCESS
>
> An Excess applies to all claims under this Policy. This word "Excess" means the amount you must contribute towards each claim. There are two types of Excess and they are:-
>
> Basic Excess
>
> You must contribute the Basic Excess towards each claim, unless you have paid additional premium to delete this Excess.
>
> Age Excess
>
> When the claim arises from a happening in which the car covered by this Policy was driven by a person under 25 years of age, you must contribute the Age Excess in addition to the Basic Access. You will not however be required to contribute this Age Excess if you have paid additional premium to delete it or if the claim is for windscreen only.
>
> The amounts of the Excesses payable by you under this Policy are listed in the current Schedule to this Policy.

In effect in our act to explain, we spontaneously move towards and adopt Plain English. Furthermore we would strenuously maintain that our Plain English explanation was an accurate interpretation of the original. Not for one moment would one accept that our explanation in Plain English to a member of the public or a junior member of stall was misleading or inadequate.

This is the reality of the situation. We have documents which are incomprehensible to many and daily we spend time rephrasing them in words that can be understood. Why not use this accessible language in the first place?

ACKNOWLEDGMENTS

In preparing this paper I have drawn on my experiences in re-writing legal documents, consulting on commercial reports and teaching. I am very conscious, however, that permeating it is a lot of knowledge drawn from reading over the years in linguistics and psycholinguistics and acquired in fruitful exchanges with members of the Document Design Centre (U.S.A.), Dr. Patricia Wright, Applied Psychology Unit, Medical Research Council (U.K.), and others.

Robert D. Eagleson
Department of English, University of Sydney, Australia

* *

MINI REVIEWS

Editor's Note: These mini reviews are intended to acquaint you with new publications. Each of these texts in available for comprehensive review. Preference will be given to reviews based on classroom use of the text. For further information and book review guidelines, write Book Review Editor, ESP Newsletter, English Language Institute, Corvallis, OR 97331, USA.

START ENGLISH FOR SCIENCE
G.D. Nogas and A.R. Bolitho
Longman, Great Britain, 1982
108 pp., paper,

START ENGLISH FOR SCIENCE is the latest book to be added to the series which began with the now classic text LEARN ENGLISH FOR SCIENCE. The three books make up a complete course for students who need English to read and understand scientific and technical material. Each book can be used independently at the appropriate level. Each book is accompanied by a Teacher's manual.

START ENGLISH FOR SCIENCE is the elementary course centered on basic topics in science and technology. It assumes no previous command of English. The reading develops from simple sentence level to short continuous texts. Numerous diagrams and illustrations are used in a wide variety of exercises.

THE VOCATION ESL HANDBOOK
Joan E. Friendenberg and Curtis H. Bradley
Newbury House, Rowley, MA, 1984
99 pp., paper, $8.95

THE VOCATIONAL ESL HANDBOOK is the first teacher's manual to the field of VESL instruction. The book is a valuable resource to teachers of vocational students, workers, and adults, refugees with limited English proficiency, as well as a course text for pre-service instructors in ESL, bilingual education and vocational special needs training programs. In its seven chapters, the book examines all the important aspects of a vocational program--relation to other subdisciplines in ESL, methodology, program design, assessment considerations, and proficiency and achievement testing.

Comprehensive appendices include Selected Professional Resources, Oral English Assesment Instruments, Selected Classified Bibliography of Prevocational Materials, and a Sample Occupational/Task Analysis.

ATTITUDES THROUGH IDIOMS
Tom Adams and Susan Kuder
Newbury House, Rowley, MA, 1984
102+ pp., paper, $17.95

This text is a collection of over 200 command and/or current American idioms which are suitable for intermediate to advanced ESL classes. The idioms are divided by cultural attitudes into 24 categories such as privacy, honesty, thinking ability, friendliness, and hard work.

EXPRESS ENGLISH: transitions.
Linda A. Fereira
Newbury House, Rowley, MA, 1984.
152 pp., paper

TRANSITIONS is the intermediate level program of the EXPRESS ENGLISH series. The text is aimed at intermediate level students, and 'false beginners' who need more communicative practice and those who need an intensive refresher course. The series employs a communicative syllabus, but it also offers carefully guided practice in identifying and using correct grammatical structures and functional expressions. Within the framework of a soap-opera storyline, TRANSITIONS gives the learners practice with the day-to-day tasks and life experiences. The soap-opera format gives the series an important internal consistency and an authentic basis for the expercises and activities that are practiced.

ENGLISH FOR COMPUTER SCIENCE.
Norma D. Mullen and P. Charles Brown.
Oxford University Press, New York, 1983
239 pp., paper, $8.95

ENGLISH FOR COMPUTER SCIENCE provides up-to-date information on the computer, its components and processes. The text is designed to develop the reading skills necessary to extract information from computer-related texts and to teaching the grammar and vocabulary used in computer science. The text is intended for an intermediate level English reading course for people working with computers or studying computer science. It is suitable for in-company training programs, and for universities, college and technical schools.

* *

* * * * * CALL FOR PAPERS * * * * *

EASTERN MICHIGAN UNIVERSITY

FOURTH ANNUAL CONFERENCE ON LANGUAGES FOR BUSINESS AND THE PROFESSIONS

(May 2-4, 1985)

Hyatt Regency Hotel, Dearborn, Michigan

GENERAL AREAS TO BE COVERED AT THE CONFERENCE:

BUSINESS: Papers on any foreign language for business are appropriate but preference will be given to commercial FRENCH, GERMAN, SPANISH, and to commercial ENGLISH for foreign students.

PROFESSIONS: Papers on any language for any profession are appropriate, but preference will be given to papers on French, German, Spanish or ESL for the following professions: LAW (police, lawyers, the courts), MEDICINE (doctors, nurses, dentists, pharmacists), SOCIAL WORK, FIRE FIGHTING, PUBLIC EDUCATION (administrators, teachers, aides, secretaries, counselors), ENGINEERING and TECHNOLOGY, the SCIENCES, MATHEMATICS and JOURNALISM.

ENGLISH IS THE LANGUAGE OF DISCOURSE TO BE COVERED AT THE CONFERENCE:

SPECIFIC TOPICS TO BE COVERED AT THE CONFERENCE:

The conference program will accomodate presentations between 10 and 90 minutes in length. Proposals must relate to one of the two areas defined above (BUSINESS or the PROFESSIONS). Priority will be given to clearly-focused papers dealing with one or more of the following specific topics:

--Rationale for programs in languages for special purposes.

--Documented evidence of the need for business people and/or professionals with foreign language experience.

--Descriptions of existing courses, programs or program components related to languages for business or the professionals.

--Specific suggestions, based on experience, on how to plan, fund and implement new courses and/or programs of these types.

--Techniques, methods, texts and/or materials for teaching languages for business or the professions.

--Internship programs in language for special purposes.

--Relationship of special-purpose language courses to traditional offerings in languages and literatures, in business and/or in the professions.

--Study of foreign cultures in language courses for special purposes.

--Proficiency testing in languages for business or the professions.

--Retraining language educators to teach commercial and/or professional aspects of languages and cultures.

--Impact on public school education of these new college-level programs.

--Computer assisted instruction for commercial or professional languages.

--Establishing professional acceptance in academia for applied foreign-language courses and programs.

ABSTRACT REQUIREMENTS (EIGHT COPIES of the abstract must be submitted):

DATE DUE:	November 16, 1984. Late abstracts will not be considered.
FORMAT:	Limited to one 8-1/2" X 11" page. Include on this page the title, length of presentation (in minutes), primary audience, and a summary of the contents of the proposed paper. (Do not put your name on the abstract.)
AUDIENCE:	Indicate that your paper is appropriate for a general audience of language educators or, if language specific, state the language to which it applies. Also, if your paper deals with the professions, state exactly which profession it will cover.
AUTHOR:	Your abstract title, name, address, and work and home phone numbers should appear on a separate page or card.

All selected papers will be published in the conference proceedings. Presenters will receive a discount on the conference registration fee.

Mailing address: Dr. Geoffrey M. Voght, Conference Chairman, Department of Foreign Languages, 219 New Alexander Building, Eastern Michigan University, Ypsilanti, MI 48197, (313) 487-0178/0130.

* *

EST CLEARINGHOUSE UPDATE

The following titles have recently been added to the EST Clearinghouse. Please note, some of these titles appeared earlier as articles in the newsletter. They are listed now for your convenience in obtaining single article reprints.

Boys, Odette. Content News in ESP: 1969-1983. 2.75(d) 4.00(f)

Robinson, Peter. Statement, question and reply routines - materials for teaching simple exchange structures to students of English for Electrical Engineering. .80 (d) 1.20(f)

Salager, Francoise. Syntax and Semantics of Compound Nominal Phrases in Medical English Literature: A Comparative Study with Spanish. 2.00(d) 2.70(f)

University of Aston in Birmingham. Language Studies Unit. The ESP Reference Collection: Third Revised Edition. 4.50(d) 6.00(f)

Velasquez, Gustavo. New Perspectives. VESL: An Annoted Bibliography. Available through ERIC, 1960 Kenny Road, Columbus OH 43210, USA. Telephone: (614) 486-3655.

Weissburg, Robert and Suzanne Buker. Strategies for Teaching the Rhetoric of Written English for Science and Technology. 1.10(d) 1.50(f)

ISSUE #89
AUGUST 1984

English For Specific Purposes

MAURICE RYAN
KUWAIT UNIVERSITY
GUEST EDITOR

MEDICAL ENGLISH IN KUWAIT AND THE MIDDLE EAST
PART I

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Guest Editor's note

The special English language needs of medical students, and Middle East students in particular have been receiving particular attention in recent years. In this special issue, we have attempted to present some of the developments and major issues relevant to the teaching of pre-medical and paramedical English in Kuwait and the Middle East. One of the main needs among teachers of medical English today is to be able to share insights and information with each other. It is hoped that the following contributions, if not providing definitive answers to current problems, will stimulate discussion and constructive interchange between specialists in the field of medical English.

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

TEACHING ENGLISH FOR MEDICINE IN THE ARABIAN GULF REGION

1. Why do it?

English for medicine and allied health is being taught increasingly for two main reasons: a) English is the medium of instruction in faculties of medicine and allied health sciences in the Gulf universities, and b) English is the official hospital language in which records are kept and formal communication takes place between Arab and expatriate staff from all over the world.

2. Where is it done?

Medical English is being taught all over the region, which for the purpose of this survey is limited to countries bordering the Arabian Gulf on the west and south; i.e. Kuwait, Saudi Arabia, Bahrain, Qatar, the United Arab Emirates and Oman. (See map.) (Iran, formerly of major importance in the development of programmes in medical English, is not considered here.) As expectations for education and health increase in these rapidly developing countries where hospitals, health institutes and universities seem to pop up overnight, so the demands for the teaching of medical English are expanding.

3. At what levels is it being done?

Generally speaking, medical English is taught to three different sets of students:

a) Paramedicals in hospital-related settings, including Ministry of health institutes training nurses and medical technicians. In Oman, for example, nurses from the graduating class complete their training by spending several months in hospitals in the U.K. In many of the large hospitals in Saudi Arabia (e.g. the King Khalid National Guard Hospital in Jeddah) U.K. or U.S. based companies, typically provide staff to train all hospital personnel from security guards and porters to interpreters and administrators.

b) Students in pre-medicine, pre-dentistry, medical and X-ray technology, physical therapy and medical records administration in university faculties of medicine and allied health sciences. They may spend up to 550 hours upgrading their school English to the point where they can cope with textbooks, handouts, lectures, tutorials, labs, writing assignments and examinations exclusively in English. The first established English-medium medical schools are those in Saudi Arabia, including King Abdulaziz in Jeddah, King Faisal University near Dhahran and King Saud University in Riyadh, followed by Kuwait University. Since 1982 Bahrain University College has been taking pre-medical students who will continue their medical and clinical studies at the new Gulf University. The U.A.E. are now planning a medical school. In Oman, where Sultan Qaboos University is still in the building phase, students in the first class to be admitted in 1986 will have to complete a science foundation course with 525 hours of English in addition to a heavy load of English-medium science before they are accepted for the Colleges of Medicine, Engineering, Science and Agriculture, where the ESP courses will be more narrowly focussed.

c) Medical graduates, often hospital residents, whose English is being topped up for a variety of reason. They may be Arabian Gulf nationals who graduated from medical colleges in Eastern Europe and lack a common language to use with non-Arab hospital staff; junior medical staff who want tuition for the ECFMG, VQE or PLAB examinations to allow them to work and study in the U.S. or the U.K.; would-be course participants for whom the Ministry of Health has ordained an intensive language course before the English-speaking seminar leaders arrive.

4. Who is doing it?

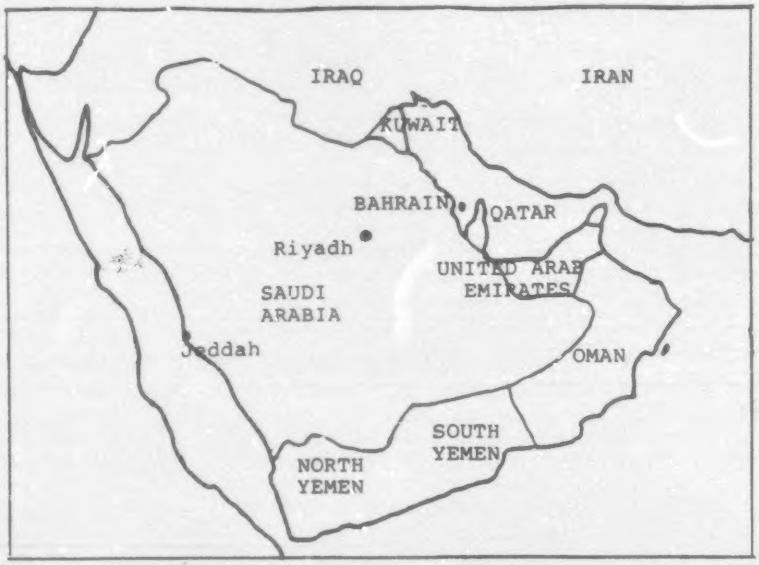
Medical English is being taught in the Gulf region by a mixture of Arab nationals and English native speakers, with qualifications varying from teacher certification in English to a doctorate in Applied Linguistics. Most frequently they have a bachelor's or master's degree and some years of experience in TEFL. Few have a background in medical sciences or ESP medicine, but they pick it up very rapidly or move on to something else.

5. What about research?

Many of these operations are ad hoc hand-to-mouth teaching mills. An instructor stepping off a plane into a hospital classroom to a load of 25 contact hours a week can barely keep up without embarking on needs analyses or systematic course evaluation. Teaching loads are usually lighter in university language departments, but then the immediate demand is to develop teaching materials more relevant to the students' level and situation. Journals take months to arrive, adequate resource and reference collections are the exception and communication between centres is virtually non-existent, with the result that the wheel is constantly being reinvented. Moreover, the career structure for most language instructors takes no account of research or publications. Few medical English units other than that at Kind Abdulaziz University have had the benefit of consultants and specialists brought in by bodies such as the British Council. Given the lack of time, money, resources and incentive, it is remarkable that such a great volume of first-class teaching material has been generated by medical English units in the region.[2] Broader-based studies can virtually be counted on the fingers of one hand.

6. What next?

One of the most helpful signs of growing interest in medical English is the newsletter planned and edited by Nigel Bruce. This may go far towards providing the impetus to communicate which is acutely needed if teachers of ESP Medicine are to develop any degree of real professionalism. Since the demand for teachers of medical and allied health English in the Arabian Gulf region is likely to continue growing, it should be an exciting place to be working over the next five years.



1. the Allied Medical Group in Riyadh.

2. Most of this has remained unpublished. Read and Note: English Study Skills for Science and Medicine by Keith Purvis (Heinemann: 1978), developed at the Medical School in Riyadh, is an exception.

Diane E. Adams Smith
Sultan Qaboos University, Sultanate of Oman

* * *

ENGLISH FOR STUDENTS OF MEDICINE

Most research into "medical English" concentrates on the language needs of those who are already qualified in a medical field or for those who are about to train for a particular specialization. In attempting to identify the language needs of students of medicine we should be careful not to make unreasonable assumptions about the level of scientific knowledge of the students. Students of medicine are not doctors and their language needs are different. It is extremely dangerous for language instructors to rely on their intuitions or on suppositions about what goes on in medical institutes in Britain or the United States. In Kuwait a medical degree takes seven years and English is taught only in the first two years, the pre-medical years. From my research into the language needs of the students in the third year, the first pre-clinical year, I suggest that it is more appropriate to teach students language and study skills required by students of Medicine rather than those skills required by practising doctors.

During the academic year 1981-1982 I investigated the language skills required by students in their first pre-clinical year. My project was funded and supported by the Research Council of the University of Kuwait. My aim was to establish which skills the students most needed in order to be able to follow their pre-clinical courses through the medium of English. Altogether, I attended 260 hours of pre-clinical classes in Anatomy, Biochemistry Community Medicine and Physiology. I was present at 25% of all classes taught by these departments and at the complete course in Community Medicine for pre-medical students. As well as attending classes and discussing work with students on a regular basis I also examined textbooks, notebooks and tests and attempted some of the homework assignments.

Students of medicine in their first pre-clinical year needed to do the following in English:

1. Listen to lectures and take relevant notes.
2. Read books and sections of books and take relevant notes.
3. Combine notes taken from different sources in order to answer questions.
4. Ask lecturers for clarification.
5. Make a contribution in tutorials and discuss problems.
6. Prepare and deliver seminars in teams of 6 - 8.
7. Answer exam questions (MCQs, paragraphs and mini-essays).

The following problems should be investigated by the English Language and Study Skills Instructors:

1. Difficulty in identifying main points in speech.

Most lecturers make few allowances for the fact that the students are working in a foreign language. The lecturers themselves have a wide variety of styles, accents and standards of English. The students rely heavily on what they can SEE on the board or OHP, because many of them **understand** very little of what they HEAR.

2. Difficulty in dealing with long pieces of prose.

Very few students can handle the amount of reading assigned them. The books and articles are written for native speakers of English and these students have never before been exposed to such amounts of very complex language.

3. Difficulty in combining knowledge from different sources.

Compartmentalised thinking is a fundamental problem in this part of the world when a western system of education is superimposed upon a traditional muslim system.

4. Difficulty in asking questions.

The students who most need to ask for clarification are unable to do so as their English is so weak.

5. Difficulty in participating in discussion.

The best students benefit from tutorials; those weak in English gain nothing.

6. Difficulty in contributing in seminar teams.

Only the very best students contribute.

7. Difficulty in dealing with exam questions.

The level of English in exams is very low. Students who have not written any continuous prose for several weeks are suddenly faced with questions that require a paragraph or mini-essay. Even in MCQs students tend to do badly when they have to apply knowledge.

CONCLUSION

It is essential that those involved with designing and teaching the English Language courses remain in contact with students in the Faculty throughout their seven years and with those who teach. I feel that anybody designing courses must attend classes in the medical subjects to see and hear the realities of the situation. In this way we can attempt to teach the students some of the language and study skills they will need throughout their studies. We must now use books designed for doctors and nurses, thinking that this is "medical English". We need materials specifically designed for students of medicine.

Andrew Seymour
Sultanate of Oman's Ministry of Social Affairs and Labour

MEDICAL ENGLISH AT THE UNIVERSITY OF KUWAIT: A STATE OF THE ART REPORT

The English and Medical Study Skills Division (MSSD) of the Faculty of Medicine of Kuwait University was established in 1975, a year before the Faculty admitted its first undergraduate students. There was a need for such an English Division from the beginning, because all Maths and Science courses in the University are taught and studied in the medium of ENGLISH, and English is the medium of professional communication in Kuwait's hospitals. Initially, the students admitted to the programme were exclusively pre-medical but later, nursing and paramedical students were also included. In 1982, because of the expansion in nursing and paramedical education, a new faculty was created, the Faculty of Allied Health Sciences & Nursing.

The English and Medical Study Skills Division, now consists of the Pre-Medical English Unit, with nine staff members, and the Allied Health English Unit, with 11 staff members. Each unit is headed by an Assistant Director. There are currently 160 Pre-Medical students and 208 Allied Health students.

The students in both programmes are admitted on the basis of their final high school examination which is in all subjects, but not English. The students have, however, usually studied English for at least six years before entry. They are generally between 18 and 20 years of age and have Arabic as their mother language.

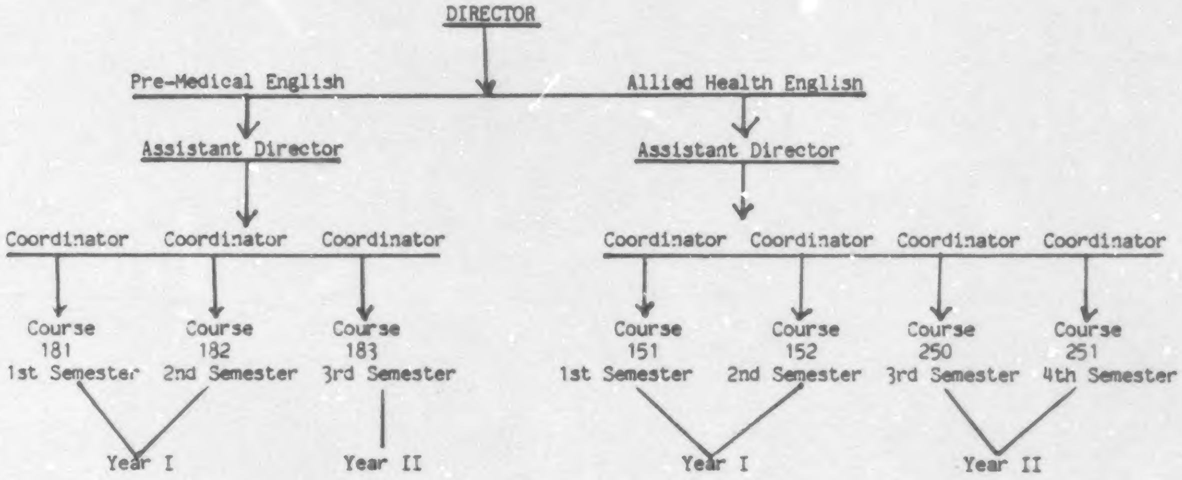
Students studying to become doctors follow a seven year programme which is divided into three segments: Premedical, Preclincal, and Clinical. English is studied only during the 3-semester Premedical segment. The Premedical English programme consists of three courses, each one a semester (15 weeks) long. The first course has 10 contact hours weekly, the second 8, and the third 6. The Allied Health Students follow a four-year course of professional training, and study English during the first two years. During this time, they must complete four one-semester English courses. The first course has 10 contact hours per week, the second 8, and the third and fourth course, 5. Students in both the Premedical and Allied Health programmes also follow English medium mathematics and basic science courses during their freshman and sophomore years.

In MSSD's program all sections of a course follow the same core program, modification being made only when teachers feel it is necessary in order for their group to meet the objectives of the unit or, in the case of the more able students, to stimulate them beyond the stated objectives. Each course coordinator is responsible for coordinating his course's teaching programme and ensuring that the members of his teaching team achieve the same course objectives week by week. The testing programme is similarly a team effort. Teachers work together in the preparation and marking of progress tests and mid-semester and final examinations. The team approach has the advantage that it helps to ensure parity of assessment between all the students on a particular course both in the content of the tests and also in their construction and marking.

Several factors have influenced the development of the courses themselves. One initial determining factor in the selection of course content was the criterion of relevance to the communicative needs of the students. Having already studied general English for six years at school, the Premedical and Allied Health students reacted negatively to more general English courses; hence there was a need for ESP courses of a medical nature. A second factor was the communicative demands which English-medium courses and subsequent professional careers placed on the students. As a result, the English programmes for both the Premedical and Allied Health students have of necessity been closely geared to the student's current and future needs.

Our present courses have been shaped by several needs analyses, as well as continuing consultation with the faculties of Medicine and Allied Health. For example, in 1979-80, Diana Adams Smith carried out research into the language requirements of Kuwait Allied Health students of physical therapy, medical technology, radiologic technology, medical records and nursing. In 1981-82, Andrew Seymour carried out a similar research project into the English Language and Medical Study Skills required by Kuwait University students of medicine. (See elsewhore in this issue). The data base resulting from both these research projects included details of methods of teaching in the Medical and Allied Health courses, analyses of the types of communicative tasks students are required to perform, and samples of textbooks, lecture notes, clinical reports, tests, etc. Using this data base it was then possible to determine the communicative needs of the different groups of students and draw up a syllabus relevant to their needs.

In these ways, the division's courses have evolved, enabling us to equip our students with the communicative and study skills necessary to undertake their professional studies and pursue their careers.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Pre-Medical English
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Course 181 1st Semester
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Course 183 3rd Semester
Year I
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Course 151 1st Semester
Course 152 2nd Semester
Course 250 3rd Semester
Course 251 4th Semester
Year I
Year II

Maurice Joseph Ryan & Joanne Marino
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LISTENING COMPREHENSION IN THE PRE-MEDICAL CLASSROOM

The listening comprehension component of the English and Medical Study Skills Division's pre-medical program has reflected in its development the changing state of the art in TEFL. It has evolved from a general English approach to an ESP one, from texts which are read to students to authentic materials and from post-listening exercises only to pre-listening exercises which teach students what to listen for and how to listen, as well as graded post-listening exercises. As the Division has been able to assess its successes and weaknesses through participant observation,[1] a profile of learner needs has unfolded and the program has taken into account continuing developments in psycholinguistics, discourse analysis and language learning.

In their preclinical years, students attend up to four hours of lectures daily. Therefore, in an English program established to "equip the student with communication and study skills necessary to undertake the preclinical and clinical program"[2] emphasis has been placed primarily on academic listening (listening to lectures) and its associated study skill - note-taking. In addition, while keeping academic listening as the main thrust, the Division has recently begun a move to have students listen to actual discussions and conversations. This has been prompted by current research into, inter alia, speech acts, and the relevance of such research to the needs of medical students when they participate in seminars in their medical careers.

In the development of instructional activities to realize the identified objectives several points have been considered. First, to keep student motivation high and to focus on those aspects most meaningful to medical students only materials of a scientific and primarily a medical nature are used. In addition, there is an attempt to use only authentic spoken discourse, usually with supporting visuals.

This is done through the use of video-taped lectures, teacher lecturettes and guest lectures presented by the medical staff of the faculty. For teacher lecturettes, teachers are given a text of a lecture, a short reading and an outline. After previewing the material they give a lecture to their class using only the supplied outline and any notes they have added. This has proved to be an effective tool and often as close to reality as possible taking pedagogic constraints into consideration. In the Division's final course, members of the medical staff give 20-40 minute lectures. Speakers are varied to provide students with a wide range of dialects, accents and styles and no individual faculty member is asked to give more than one lecture. (This avoids the common problem of staff being unable to participate in the English program because of commitments in their own department.) The course's teachers and the visiting speaker discuss the level of difficulty of content and language before the lecture. Besides providing authenticity of language these three methods have proved to be valuable in illustrating and explaining the paralinguistic elements of a lecture and their importance in understanding the message (Murphy and Candlin, 1979). Although not displaying the structural features of a lecture, intermediate and advanced level science films are also employed in an attempt to supply both authenticity and a less tense, more pleasant means to practice listening skills.

Second, to prevent student overload, i.e. failure to follow a listening activity due to an excess of unknown vocabulary or concepts, pre-listening exercises have been included at the earliest stages (Green, 1975). In addition, all materials are integrated thematically with the rest of the course. A listening exercise often activates library research into the topic, extends reading, or is the basis for a writing assignment, short oral presentation or simulation activity.

Third, to ensure that the listening activities do not merely test memory but require apprehension of meaning, multiple choice questions are used in which the correct choice either restates the speaker's idea but does not repeat it word for word or draws on elements from several sentences. The development of this skill, understanding what has been heard, is particularly important for Arab students as their previous educational methodology has stressed memorization and, thus, they are very good at repeating what has been said even though they may not grasp its meaning. In the Division's earliest years, students repeatedly replay film tapescripts in order to transcribe them so that they could learn them of by heart, and students have been known to tape their science lectures in order to memorize them which is how it is thought one learns a lecture.

Fourth, so that listening activities do not simply test the level of acquisition of a set of skills but guide the learner in acquiring these skills, input and tasks are graded and clearly marked as to what the student is expected to be able to do upon completion. Initially, listening activities help to build-up short-term memory. Students reproduce the segments of discourse they hear at the word level and at the level of syntactic groupings. In this way students are guided to organize raw speech into constituents, propositions and finally coherent messages. From almost the earliest stages students are made aware of cohesive devices which, except for substitution and ellipsis, have already been examined in written discourse. Students are asked, for example, to note the number of times reference words are used or to identify conjunction and lexical cohesion. Other listening activities move the learner from immediate recall of words and content to delayed recall, generally in the form of listening for specific information to answer known questions. Note-taking activities assume students lack the skill to classify data under major headings and organize notes. Initially the general structure of the lecture (e.g. in the form of a chart, outline or flow diagram) is given with some notes included in the omission of key words. As the activities progress, less information and organization is provided until the student is able to take notes on his own. The most advanced activities require immediate and delayed recall in the form of note-taking and the use of these notes at a later date to answer content questions, make inferences and synthesize the material. In all but the most basic exercises the materials seek to simulate the role of lectures in an authentic academic study scheme (Murphy and Candlin, 1979).

The unit which focuses on listening to discussions and conversations is a new one and is closely tied to oral work. Initially this unit was part of the Division's oral component, introduced solely to improve speaking skills. However, it soon became evident that students were not always making appropriate responses; they dealt only with the surface meanings of utterances and sometimes ignored even these in their rush to say what was on their mind. Conversations were disjointed. Students were neither aware of the illocutionary meaning of what was said nor did they observe principles of conversational organization. So, to focus attention on these elements of conversation, students are now required to listen to actual discussions to identify aspects of conversational cooperation and organization such as politeness strategies, openings, closings, topic nomination, turn-taking and clarification. They also examine the use of para-linguistic devices (gesture, eye movement, facial expression). Then, in semi-structured dialogues they insert possible responses. Finally in activities such as a simulated health conference, they must themselves respond appropriately to their classmates who are expected to use these strategies in the simulation.

Students have responded very favorably to this unit and have shown improvement in their conversational skills. Instead of a flood of statements, a more orderly progression is now observable and more attention to politeness has altered previously curt behavior. The listening activities combined with the speaking aspect of this unit have increased our students confidence in their oral skills and, therefore, this unit has become a popular one.

The listening comprehension component is a major part of the Division's curriculum, and although elements of it are still being revised and refined, we feel that is has proved to be a good base upon which to build. Other ESP departments which have similar concerns and student needs might consider aspects of it when developing their own programs.

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FOOTNOTES

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English For Specific Purposes

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ETYMOLOGY AND THE TEACHING OF VOCABULARY TO MEDICAL STUDENTS

"A General Service List of English Words"[1] (GSWL) has served as the basis for vocabulary selection for the first stages of ELT courses for over the past fifty years. This debt is sometimes acknowledged[2] and sometimes implicit.[3] The influence has been on the whole benign, as any foreign students of English who realize they have as many as a hundred famous titles of English literature in simplified English available to them by the time the first 2,000 items of English vocabulary have been mastered would surely admit.

In MSSD realization of the fact that GSWL constitutes a standardized basis has been used in prescribing such study aids as the general dictionary and the rapid reading textbook for the pre-medical students. (See footnotes 2 and 3).

All the incoming pre-medical students take a placement test and are then placed in streamed classes. All these students are able to understand and communicate in English, but the difference between a typical B-student and a typical D-student is vast. The A and B-students have an active command of GSWL, and can use the 300-360 hours of classroom exposure to native English-speaking teachers available to them in their three semester course of 45 weeks to improve their English and develop their medical study skills. The D and F-students have a defective and passive command of GSWL only and require what amounts to a remedial course in English. Nevertheless at the end of their three semesters, all students are required to take the same examination, which is based mainly on study skills, although, of course, poor English is severely penalized. As is to be expected, the average C-student does not fit neatly into either of these two categories.

Now, as is well know, the concept of 'word' is one that linguists are loathe to use, since, unless it is carefully defined, it can mean all things to all men, such as lexeme, word-form or grammatical word to quote but three differentiations which commonly occur.[4] For example, if instead of counting the entries (lexemes) in GSWL, we count the sub-entries (the word forms and most of the grammatical words), then even in this carefully compiled word count of 1864 words the number soon rises to over double that amount.

With this in mind, therefore, we must treat with caution such statements to the effect that there are over 600,00 words in the 'Oxford English Dictionary', or that an English medical student has an active vocabulary of about 10,000 words when beginning to study at university, and about 20,000 on completing these studies.

On condition that the above caveat is observed, however, such statements do have some value, even if they only serve to indicate that the average Kuwaiti medical student has a lot of ground to cover before his or her work comes under the scrutiny of external examiners who are often native-speakers of English.

As far as the pre-medical students are

concerned, however, they are required by the end of their course to be able to read a simple text on medicine written for the native English-speaking layman such as "The Medical Risks of Life" - S. Lock and T. Smith, Penguin, 1976.

Some of the success achieved in doing this is due to the 'Word Study' periods. In these lessons lists of root and affixes within certain semantic, functional and grammatical categories are set for private study, and then checked in class by means of exercises. These are frequently designed to deduce the meaning of an unknown word consisting of known components, e.g. If an otoscope is an instrument for inspecting the ear, then a cystoscope is used to examine the (bladder).

Such exercises are surprisingly popular with the students, and I believe that there are at least three reasons for this:

i. students need only produce a single word, e.g. bladder, that is a short utterance;
ii. the components can be learnt off by heart, and applied without too much difficulty;
iii. the students feel that they are doing something relevant to their future medical studies.

Teaching this type of vocabulary creates in fact few problems; the work is new, and it has the same sort of fascination as solving crossword puzzles. It should also be noted that the number of roots in this sort of work is extremely limited; if we estimate the figure from the index of one of the texts used[5] which lists all those of Greek and Latin origin only, then the figure does not exceed 400 even after all the phonetic and orthographic variations due to assimilation have been included, e.g. ad- 'towards, near' which also occurs as ac-, af-, ap-, as- and at-.

Vocabulary problems and the closely allied problems of pronunciation, spelling, appropriate stylistic selection and collection tend to occur with those English morphemes which are of high frequency rather than low frequency[6]. The cases of two students must suffice to indicate the areas of difficulty.

Student A is conscientious and gains a respectable 70% = C for a medical dictation test in which such words as 'cheilocarcinoma, pyelonephritis and saccharine' are spelt quite correctly, and the meanings are known. Elsewhere in the examination, however, such words as 'smokes, will, more, and succeed' are spelt wrongly. Furthermore references are made to 'flamed cigarette' for 'burning cigarettes', and the concepts of grammatical concord and agreement may just as well have never been taught.

Student B, who is of the same level as the above student, that is level D, is cast as 'a patient who suffers from asthma' in a role-play situation. This student produces the utterance: 'I am having difficulties with my respiratory system' instead of 'I can't breathe' or the more complicated utterance, 'I find it hard to breathe'.

It is in the case of students like these that etymology can play a role in their English course when they first enter our unit, and it is in the GSWL that answers to their problem can in part be found.

'The semantic count (of GSWL) was a count of the frequency of the occurrence of the various meanings and uses of words as found in a study of five million words (or for some words, 2 1/2 million) running words.'[7] These five million words all ocurred, of course, on the printed page. It is therefore not surprising that when we analyse the origin of the 1864 entries (lexemes) in the list, we find the following etymological distribution: Germanic - 49%, Latin - 44%, Hellenic - 3% and miscellaneous - 4%. We should be careful to note here, however, that it is not always enough to know the origin of a word, but it is also important to realize the route, the time and the manner in which these words entered the English language.

Now as Arabic is a non-Indo-European language, the Arab student of English treats all the words learnt as being equal in importance, although, of course, those words which occur more frequently such as the structural words as opposed to some of the content words in the language will be learnt, but not necessarily mastered, first.

The real problem lies in that of style. In general, native English speakers use short Germanic utterances in speech, but express themselves in longer sentences with a larger number of Latinate words and phrases in writing.

The foreign learner of English must be taught to say, 'I can't breathe,' or 'I find it hard to breathe,' that is 3 or 6 syllables forming Germanic words only, and not 'I am having difficulties with my respiratory system,' that is 17 syllables forming a non-English, or at least uncommon, spoken utterance containing two words of Latinate and one of Hellenic origin.

Such words as 'difficulties, respiratory' and 'system' can be taught in their own good time, and especially when practice is being given in the written component of a course.

An etymological approach to ELT also has other advantages over the current haphazard attitude to the presentation of vocabulary.

As English words of Germanic origin and the utterances containing them are usually short, proper pronunciation and intonation patterns can be drilled thoroughly before proceeding to the pronunciation and intonation of longer utterances.

Furthermore, since the pronunciation and spelling systems of Germanic words in English differ from those of Latin, Latinate and Hellenic origin, they should also be taught separately.

It is important, however, that this approach is not taken to extremes. For example, the seven words, whole, hail, hale, heal, health, holy and holiday, are all of Germanic origin, and are all derived from the same root; they also occupy incidentally five entries in GSWL. Nevertheless one might hesitate before explaining this in any detail to foreign language learners, or even drawing their attention to it in the first place. When we realize that the words, dull, dune, dodder (Germanic), fume(s) (Latin), thyme, typhoid, typhoon (Hellenic), and possibly stew (Latinate), all derive from a common root, the matter becomes even more contraversial, and it is perhaps better if facts such as these remain within the covers of etymological dictionaries for all but very few students indeed.

The guidelines as to whether the etymology of a word should be mentioned in a classroom at all are:

"Is it of interest to the student?" and, possibly more important still, "Does this knowledge help the student in mastering the language in any way whatsoever?" If the answer to this last question is 'No', then it is better to make no use of etymology.

In short I hope that in the above article I have shown that there is a place in English language teaching for applied etymology although a lot more research still needs to be done. Furthermore now is a particularly appropriate time to point out this fact, since, at last, linguists of repute such as J.P. Maher are openly challenging the generally accepted dogma of the past sixty years when the findings in diachronic and synchronic linguistics had to be kept in two distinct, water-tight compartments.[8]

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FOOTNOTES

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Guest Editor's Note

This article presents a challenge to the reader. It argues the case for the teaching of applied etymology in Medical English programmes but expressly leaves it to the reader to provide a solution.

* * * * * * * * * * * * *

SHOOTING FIRST: A PRAGMATIC APPROACH TO ESP PROGRAMME DEVELOPMENT

We are all familiar with the job advert proviso: 'Previous African experience necessary', which appears so often in the 'Pioneers wanted' columns that a Catch-22 situation has developed - you can't get experience in Africa until you've had experience there. 'Africa', in the context of ESP, represents 'new horizons', and the type of advert we have in mind is for the provision of a vocational English language programme. In fact, a client for such a programme is unlikely to be thinking in terms of 'new horizons' or 'pioneers'; it is, rather, the applicant - the ESP practitioner himself - who will read between the lines of the advert and discern the uniqueness of the job specifications. Where, then, is the Catch-22? The catch is that ESP practitioners are often deterred by the prospect of undertaking a completely new project in unfamiliar territory. They lose sight of the fact that all ESP situations (and therefore programmes) are a priori unique, while the principles and techniques applicable to any ESP programme development remain fundamentally the same. Therefore, if they have an ESP background, they will almost surely have had 'experience in Africa', and will be well-enough qualified to seize the bull by the horns and take on the challenge. What is often lacking is confidence in this experience and an optimistic but realistic approach, with an assessment both of the potential of the job and of the inherent contraints.

What we are advocating here is a pragmatic approach to developing an ESP programme, a policy of 'shooting first', with the unhestitating implementation of 'pilot ' courses. The main pre-requisite is a cool appraisal of the operational constraints and a recognition of the need to accomodate these contraints in the programme design. The reasons for resorting to a policy of shooting first can be traced to fundamental problems of the ESP teacher's role and image in the EFL marketplace. Before elaborating on these problems, we offer a 'case study' of our experience in tackling what was, for us, a 'new horizon' in ESP.

The Ministry of Public Health, Kuwait, now has an in-service English language programme for doctors and nurses, consisting of 5 different courses, with an annual total of 1200 teaching hours and a teaching staff of 7, seconded (after working hours) from the Medical and Science Faculty Units of the University Language Centre. This time last year there was no formal programme, only an ad hoc arrangement to prime a handful of doctors prior to a study year in Britain. How did this sudden transition come about?

The English programme did not come about as a result of a well-researched, Ministry-funded needs analysis. The Health Ministry is used to courses being offered ready-made by lecturers working at the University, or by hospital consultants - courses built on the platform of their own professional training. We were expected, as 'experts' in our own field, to turn up ready-equipped with our own educational package, and so - caveat emptor - this is what we did. Admittedly, when we first appraoched the Ministry, we were not offering completely unresearched courses; the 2 courses we were proposing to develop were both based on research done during M.Sc. studies the previous year. Nevertheless, any course we offered would have to be adapted to the specific needs and abilities of doctors and nurses in Kuwait, and the only practical waythis could be done was by treating the first course as a pilot course. Intensive interviews and placement tests gave us a fair idea of candidates' needs, background and level, and at least allowed the selection of homogenous groups. What they also revealed, however, was a demand for courses at other levels and with other objectives.

The Ministry has agreed that we were to interview for 2 specific courses: "English for Medical Research Reporting" and "Technical English for Nurses"; now we approached them with proposals for 2 further courses: a basic course for nurses and an intermediate, communication-skills course for doctors (we shall henceforth confine our remarks to the doctors' programme). The weight of demand persuaded the Ministry to extend our brief, and we were faced with the choice of holding back until we had researched this new situation, or of plunging straight in and 'shooting first'. We chose the latter option, partly influenced by the fortuitous appearance of the BBC's new self-instructional coursebook for doctors, "Medically Speaking", which seemed to offer a ready-made platform on which to construct a pilot course; this could then be expanded, modified or pruned in the light of in-session feedback and evaluation. Expansion, particularly, was required in the direction of more extensive and authentic doctor-doctor discussion; for this, we selected "Tutorials in Differential Diagnosis", a set text for the Royal College of Physicians' professional exams. We also developed some language laboratory materials on the recognition of stress and intonation patterns in patients' responses, based on material used by the British Medical Association to test the communicative competence of overseas doctors wishing to practise in Britain.

Teachers on the new intermediate course, then, were not overburdened with research and development (R & D) work; this was largely because the high level of the doctor's competence meant that an abundance of authentic medical educational material was available for ESP use with the mininum of adaption. The real 'baptism of fire' came when we were 2 months into our programme. The Ministry took the initiative for the first time, requesting a basic English course for a group of doctors who were trained in Eastern Europe and were due to be sent to Britain for further study. The content of the English course was left to us to decide; we were simply asked that the course begin immediately. This time we really were being asked to 'shoot first' and ask questions (like: 'What exactly do these doctors need to be able to do) later. We quickly drew up an outline syllabus, based on the main systems of the body and their associated diseases, and on the various types of doctor-nurse and doctor-doctor interaction we discovered they were most exposed to. We attempted to grade these according to the complexity of the linguistic exponents of those rhetorical functions predominating in each type of interaction. For example, basic information elicitation and doctor-nurse instructions were introduced before the more sophisticated 'hedging' language which features in case discussion among doctors. For this course, there was no textbook to fall back on; the low level of the doctors meant that authentic materials had to be heavily adapted, and the texts of films had to be painstakingly transcribed. The course had to be developed as it went, with the burden of materials development shared by two people, only one of whom would be remunerated: the one who actually taught the course. This needs emphasising: the only payment made by the Ministry is for hours taught; this can be a recipe for a severe dropping-off in standards, but we have been fortunate in having ESP teachers who have seen the time spent on materials writing and course design as valuable R & D experience. This is a more practical long-term reward, in that the teacher who invested so much time and effort in the pilot course will not need to put in the same type of effort for the next intake of students. This is no small consideration when we remember that all these courses at the Ministry are taught in the evenings, after completion of our university work.

What we have been describing here is one instance of a common problem in EFL - that of dealing with organisations whose interest in continuing English language education stops short of establishing their own programme, with their own full-time, salaried staff. If contracts are calculated uniquely in terms of contact hours in the classroom, then the client is gambling heavily on the dedication of the teachers hired. We are not talking here about prestige projects, where the amount of money at stake obliges both parties to write a planning phase into the contract, or where the prestige of the contractor, e.g. the British Council, can ensure a more professional approach to the planning and implementation of the project. We are more concerned with the many smaller opportunities that abound, where language teachers or institutes have to deal with a more typical client. This client generally has no notion that there is anything unique about the vocational language needs of his personnel; he is likely to expect a language teacher or institute to provide him with the appropriate 'off-the-peg' language programme. He sees the service he is buying as a product. The reality, of course, is that the client is not acquiring a product but an expert service, which will only take coherent shape once the 'expert' has analysed a host of local factors, including the linguistic, cultural and professional background of the learners, the nature and scope of their language needs, the time and resources available and, of course, the willingness of the client to allow these factors to be fully reflected in the programme design. Unfortunately, this 'reality' is only apparent to the initiated; in the commercial EFL market, ESP definitely has an image problem. Prospective clients for English programmes are usually unaware that such a thing as ESP exists or is indeed what they want, since they are likely to have been brought up on a diet of low-calorie, brand-name general English language programmes. Likely most deficiency disease, this is remediable; after a period of time, the client will come to appreciate the quality of the service he is receiving. Most clients can eventually be persuaded that their money will be better spent on a selective English programme. The difficulty lies in dissuading clients of the idea that language teachers need do no more than walk into class on Day 1, set up shop, and start selling their wares. That the actual teaching should only begin after a period of research and development would strike many employers as a needless waste of time and money, and here one has a certain sympathy with this view, since experience has shown that many elaborate needs and analyses have had to be completely revised in the light of information gained in the classroom. There is no substitute for actually getting the prospective students together in a classroom and building the course from there. In terms of time and travel spent on needs analyses, this is not unlike getting the mountain to come to Mohammed; the students are told they are participating in a pilot course, and that only with their help can the course become more responsive to their needs. This, then, is the policy of 'shooting first' and asking all the appropriate questions later, as the bullets hit or, more instructively, miss their target. What makes it a viable proposition is that is cost-effective for both client and teacher.

'Shooting first' may, in the long run, be cost-effective for both the client and the ESP practitioner, but is still basically a policy of compromise, forced on us by a profound misunderstanding of the role of the language teacher - especially of the ESP teacher. The language teacher has been saddled with the image of an itinerant player, an exponent of the performing art of teaching, ready, at the behest of a client, to set up his props and display his skills in a stock performance which the client does not expect to vary between one venue and the next. The reality is that in ESP each 'play' is a special commission, with the props, plot and players unique to each new setting; it takes an ESP opportunist to persuade a client that his interests will not be served simply by wheeling an old standard out of the repertoire.

Returning to the 'realpolitik' of ESP opportunism in Kuwait, we can point to the success of our combination of compromise and gamble. Had we not taken the gamble on those new ESP courses, the opportunity to open up this new field may have been lost. 'Shooting first' can only, however, be a viable policy for experienced ESP teachers who are able to accept and discount an initial state of relative ignorance of their target field, confident that they can respond to their students' needs as the course unfolds. 'Shooting first' does not mean 'shooting in the dark'!

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IN-SERVICE ENGLISH FOR NURSES - A REPORT OF A PILOT STUDY IN KUWAIT

When designing such a specialised course as English for nurses, the first questions are: What do the students need? and: What materials can be employed to fulfill those needs? In this paper, I attempt to outline some of the major considerations involved in planning and teaching an English course for nurses in Kuwait.

The course was devised in response to a request made by the Training Division of the Ministry of Health. It was felt that many of the problems that nurses encountered in their work stemmed from their poor knowledge of English. Kuwait relies heavily on an expatriate workforce, many of whom have no Arabic, so English is often the medium used in communication. A general complaint from the doctors in hospitals is that the nurses write very poor reports and, more often than not, fail to fully comprehend instructions. The nurses complained that they often do not understand the terminology used by the doctors and lack confidence when communicating with them.

A group of 15 nurses was chosen from 160 who had responded to the circular sent round the hospitals to advertise the course. The group was chosen according to their level of English. This was determined by a multiple-choice general English test which was adapted from other tests. We have since realised the need to devise a special test which will test both general English and nursing terminology. This will provide a more comprehensive test of their ability to communicate in a nursing situation. It may then be used to test their progress at the end of the course. The nurses we selected for the first course were mainly false beginners. They all had some knowledge of general English and of their nursing work, but their sentence structure was weak, as was their spelling and their ability to express themselves clearly in conversation. Their first language was Arabic as they were all Arab nurses, mostly Kuwaiti but some from other parts of the Arab world. Since the nurses were drawn from all the different hospitals in Kuwait and had different specialties, clearly there was some variation in their use of English. Most of them had to write brief nursing notes, consisting of many abbreviations, an extensive use of the passive, and a wide use of nursing terminology. Some nurses, however, worked in fields which required them to write longer reports, with a more detailed history of their patients. Most of the nurses had little use for oral communication in English, except with some expatriate doctors. Their main need in this area, then, seemed to be one of confidence building.

Having established the needs of the nurses, it was then necessary to design a course to suit those needs. It was decided that the emphasis should be on writing, but that attention should also be given to oral communication in certain situations, e.g. question and answer routine with doctors, with other nurses, and even (on a small scale) with patients. A part of the course was also designed to improve their knowledge of basic English - with emphasis on sentence structure, tenses, prepositions of place, and time clauses. It was also felt that some of the nurses were a little weak in their knowledge of hospital terminology and that the course should therefore include general hospital vocabulary, e.g. sluice, dyspnoea etc., together with some rather more specialised terms, such as endocardial, gastroenterostomy, etc., to give them a better understanding of the complex terminology used by doctors.

The course ran for 13 weeks, 2 evenings per week and 3 hours per evening, from October to January; it was then repeated from February to May. While the basic needs of each group remained the same (i.e. they all had to write reports etc.), the level of English was slightly higher in the second group. The emphasis, therefore, shifted from a fairly structural revision of English used in hospitals, to a more analytical examination of the English used in reports and nursing situations. In order to cater for this shift, an extensive bank of materials was needed. Two books were used to cover the basic English structure most common in nursing: Grammar and Practice, by Jennifer Seidl, which was useful for introducing certain structures and practising them, and English for Nurses was used as a source book for the first course, and as a course book for the second course. This book, however, proved to be too limited in scope, with rather repetitive exercises. It should, therefore, be adapted to suit the students' needs in future courses. As with any book available on the market, some units are better than others.

The Training Division for the Ministry of Public Health, in Kuwait, is fortunate in being well equipped with a number of video recorders, televisions, and film projectors, and these were utilised in the course. A number of general English films, of the People You Meet series presented by the BBC, were selected to provide reinforcement of certain English structures, such as tenses. The books that go with the films were also used for practising the structures. In the second course, however, it was not so necessary to provide this reinforcement. Instead, a number of films from The Role of the Nurse series were included. These proved very valuable from an interest point of view, in that they promoted much discussion on aspects of life in British hospitals compared with life in Kuwaiti hospitals. From a language point of view, they helped to reinforce certain oral expressions and technical terminology. Terminology was introduced through the books English for Nurses and Understanding Medical Terms, by Ralph Rickards, which teaches Latin and Greek medical work roots and proved to be a very useful addition to the course. Although this is intended as a self-instructional course, it was found to be very useful in class as the nurses needed a lot of extra examples and explanations for some of the more difficult terminology. A life-size skeleton from the department proved to be a very popular visual aid, used in conjunction with this book which has illustrations of sections of the body. Parts of the book are rather over-technical, however, and are more suitable for doctors. They were therefore omitted. Abbreviations were taught alongside technical terminology. Here an interesting problem arose which proved to be greater than first expected. The General Hospital in Birmingham, England, had very kindly donated a list of accepted medical abbreviations in current use in Birmingham hospitals. It was pointed out at the time that some abbreviations varied slightly from region to region but that many (the common ones) would be international. This problem of variation was soon found to be on a very large scale indeed. A list of abbreviations was obtained from the Allied Health School of Nursing, in Kuwait University, and from the Kuwait Adan Hospital; these abbreviations also showed considerable variations. As the first course progressed, it was apparent that nursing abbreviations were different in every hospital in Kuwait; thus a lot of arguement took place among the nurses as to which terms were the best. Often these abbreviations varied even within the departments of a hospital and a common complaint was that some medical staff invented their own abbreviations. One example was PAQDN which appeared on a patient's file. As no-one could understand it, the medic responsible was located and he duly explained that the patient had 'passed away quietly during the night'. It certainly seems, then, that there is a real need for some standardization of nursing abbreviations. The only way round the problem at the time was to teach the 'recognised' forms but also to discuss the different ones used in the various hospitals, as each nurse obviously had to conform to the system within her own particular hospital.

As stated earlier, the nurses' greatest need was for guidelines for writing their reports. As a great believer in the use of authentic materials, where possible, I found it necessary to collect examples of reports and samples of writing from the medical profession. I have always found medical staff very willing to assist in such projects and a number of writing samples were collected from various sources, including The Adam Hospital. Such writing samples included simple fill-in charts, e.g. temperature and blood pressure sheets, nurses notes, nursing care plans, 24 hour observation reports, and more lengthy reports which are written for admissions. Nurses notes were dealt with in more depth because they were used by all nurses and included specialised vocabulary and note-form structures. Exercises were then devised to analyse the language used and the meanings of various technical statements. The main problem with this method of using authentic materials is one of reliability. Are the reports always accurate? It seemed that a number were not. Minor spelling errors appeared, a few structural faults and the occasional ambiguous use of terminology. What could have been a most embarrassing situation was defused by using the materials to pose a problem to the class - namely, that these examples were, for the most part, correct but that certain areas needed careful scrutiny and some improvement. The nurses were then set the task of improving the reports. Both groups readily responded to this challenge (they all thoroughly enjoyed pulling someone else's work to pieces). It proved to be a very valuable exercise, particulary enjoyed by the second group who were far more critical by nature. They, furthermore, volunteered their own reports for analysis and readily accepted criticism.

At the end of each 13 week course (a total of 80 hours per course), a test was administered to assess the nurses' progress. This consisted of items testing medical terminology which had played a major part in the course, sentence patterns most common to nursing, and a nursing report to fill in, using accepted abbreviations and note-forms. As stated previously, the testing scheme needs revision before the next course takes place. No doubt some of the materials, too, will need a little revision to meet the needs of the next group of nurses. The main problem with a course such as this, where a large range of materials has to be employed, is that the teacher must be imaginative and willing to develop the available materials to suit the students, since there is no such thing as the ideal coursebook, or, indeed, an ideal group of students. From my experience in developing this course, I have learned that the students cannot be adapted to fit the materials; the materials have to be adapted to meet the needs of the students.

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English For Specific Purposes

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Comments on: Teacher-training for EST: Problems and Methods by J.R. Ewer

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I am making these comments from my own experience of about 13 years in a department of applied linguistics of a Dutch university of technology where we are teaching Dutch as L$_1$ (scientific and technical communication), English as L$_2$ and several foreign languages such as French, Russian and Spanish. We offer an additional self-tuition program in about 20 more "neglected" languages from Japanese to Swahili. Our students come from 7 different fields of engineering.

My own research included foreign language needs surveys for LSP, LSP-curriculum development, psycholinguistic aspects of LSP-reading (in L$_1$ and L$_2$) and cross-linguistic analysis of the scientific and technical register. We happen to host future and acting LSP-teachers in our education and research practice as trainers, be it on an irregular basis. A regular teacher-training for LSP, even for EST is lacking in The Netherlands. This is to say that I was very pleased to read Jack Ewer's paper, although the situation of EST in this or any other European country is probably quite different from that of Chile.

After an introduction I will review some aspects of the LSP-teacher's work as analysed by Jack Ewer who calls them difficulties (ESP#54): attitudinal, conceptual, linguistic. From my own work I will insert psycholinguistic.

Crucial to the success of such training, in my opinion, is to bear in mind both for teachers and trainees a clear profile of an LSP-student with his many variables:

1. type of discipline (and level of knowledge). A recent LSP symposium on Reading for Professional Purposes in Native and Foreign Languages at the Eindhoven University of Technology included 46 papers, 34 of which could be attributed to 14 different disciplines with indeed Science & Technology, Engineering and Economics as leaders (Ulijn, forthcoming). This corresponds with the ranking of disciplines in a recent LSP-bibliography by Turner(1980) listing 610 entries, except commerce and business studies which takes the place of economy. This is not surprising because the former is more related to oral than to reading skills.

2. L$_1$: In the case of Jack, Spanish. In the Eindhoven papers 12 different L$_1$'s of L$_2$ readers of LSP texts were represented, with leaders English and Dutch, ex aequo, Hebrew and then French, Spanish, German ex aequo.

3. L$_2$: The role of English in the ESP field is of course overwhelming. At the Eindhoven symposium, 25 (of 42) papers dealt with English as an LSP, 2 with French, 3 with German, and the remaining papers with 7 other languages relevant to the LSP field. This apportionment reflects Turner's order: 1) English, 2) German, 3) French and then other languages. Given the specific site of The Netherlands at the crossing of several different cultures within Western Europe, English is certainly not the only LSP, although it is the most important second language of most Dutch professionals. In Dutch industries for instance German is often and French sometimes of equal interest.

4. Skills: reading, writing, listening and speaking. A recent inquiry among 45 LSP teachers in Dutch universities (Ulijn & Heynick, forthcoming) showed that the order of priority of skills aimed at the LSP-courses is not identical for every language. Dutch LSP-courses, for instance, have for English advanced writing and speaking, for French

listening and speaking and for Russian reading as main objectives.

The previous data confirm at least that Jack Ewer's acronym EST: English for Science & Technology is essential for the LSP field and that a profile of an LSP student should be based on needs surveys including the foregoing variables. I might disagree with Odette Boys (1982:2) who suggests that LSP-teachers themselves are the only ones to perform such surveys. In several European countries, among which The Netherlands, national needs surveys have been held to give a methodologically sound background to the more peripheral personal analyses of LSP-teachers. Once a profile of an LSP-student is drawn, we could deduce a profile of an LSP-teacher and an LSP-teacher-trainer. The more we get away from the individual needs of LSP-students, the more difficult it is to include all relevant aspects in one profile. Should an LSP-teacher have always a merely linguistic background? He could be also a specialist in the field of concern with a special interest in communication. Should an EST-teacher be a native or a non-native in English? If he is going to teach to LSP-students of the same L_1, he should know this language as a (near-)native. If his students are of different linguistic backgrounds, a native EST-teacher could serve as a more authentic model. The EST-teacher trainer should have a sort of helicopter view on communicative situations and variables of EST-students and -teachers. In this respect the LSP-teacher-training will be similar to the translator-training for a specific field.

Let me follow now with some of the major task components of an EST-teacher as reviewed by Jack Ewer (Ewer, 1981).

1. attitudinal (p. 63): he should have a positive attitude towards science and technology; and

2. conceptual (p. 63): he should even have a modest knowledge of what science & technology is. I think we ought to make a distinction between EAP and EPP within EST: EAP (academic) is taught in the first years of a university course, EPP (professional) in the last years before graduation. EAP is meant to tackle an academic study (reading and listening), for instance in the case of non-English-speaking students in English-speaking countries. But EPP should often be more sufficient to support near-professional activities. It certainly requires more specialist knowledge from the EST or specialist-teacher than EAP, particularly in advanced skills such as report writing and oral reporting. In Eindhoven we teach reading courses for French and English in the beginning of the study and reserve the more sophisticated skills for the last years before they start their professional career.

3. linguistic (p. 63 & 68): An EST-teacher needs to have at least a working knowledge of the L_1 of his student, if possible. On the lexical level EST is so much an enrichment of the common language that it is impossible for an EST-teacher to know all terminology (with the concepts behind). Of course since ST-specialists have to create new words for new concepts all the time, some teaching of word formation procedures is essential for international normalisation and standardisation of ST-concepts. Syntactical and textual devices of EST have to be taught as well, especially those expressing crucial notions as cause, consequence, condition, purpose, etc.

If the students know already the ST register in their L_1, the EST-teacher could reflect with them on the extent to which EST varies from this L_1. How can universals and variants of L_1 and EST be accounted for in EST-courses? There is a strong indication that at least in written language universals are prevailing and should be stressed more than differences (Ulijn, 1979). This could be different in the oral ST register which is more related to the common language. In Eindhoven we are just starting a project (with the University of Tilburg) on negotiating technical business in a cross-cultural and cross-linguistic perspective which might address this question by means of speech act analysis.

Appendix I and II of Jack Ewer's article demonstrate that varieties and the "core" language of EST are important to the teacher (see list of materials in Appendix I). The Dutch LSP-teachers, however, don't agree about the comparative priority of the lexical, syntactical and textual levels. The phonemic level receives clearly the lowest priority (Ulijn & Heynick, forthcoming).

4. psycholinguistic: this task aspect is not at all dealt with by Jack Ewer. The EST-teacher should have some notion how native-English ST-specialist psycholinguistically proceed when they read, write, listen and speak for their profession. In this way students could have an ideal model of efficient ST communication which an EST teacher could not offer himself. In our research (Ulijn, 1981) we found that readers of technical texts are using more conceptual than syntactic strategies in order to comprehend. Therefore they need to acquire the content words, the main carrier of meaning of a text, rather than to receive intensive syntactic teaching.

An EST-writer can learn from EST-reading for both form and content: how are ST-concepts expressed? Unfortunately our insights so far on the psycholinguistic process of advanced (EST) writing are poor. There is some work in progress in the United States (Pittsburg, Ann Arbor) and a small project in the same Eindhoven-Tilburg cooperation has been started. The only thing we can do in the meantime is to provide EST-students with syllabi listing EST-traps to avoid, for instance, the specific difficulties Dutch students might encounter in report writing (Kuipers, 1981).

5. methodological: as Jack Ewer suggests (p. 64), implementation of EST work in a real, authentic setting is important. The specialist if he is English-speaking could provide easily such natural occasions: laboratory work, construction and manipulation of technical equipment. We would recommend this type of team-teaching next to the one intended by Jack on p. 77: cooperation between trainer-teacher and teacher. The EST-teacher could bring his ST-fellow or friend (p. 80) in his

classroom or be a guest in the ST classroom with foreign students. In Eindhoven we have good experiences in inviting English-speaking scientists into an EST-classroom. This procedure has provided good speech samples to train listening and speaking and it would also be useful for EST-teacher-training.

Comments on: Teacher-training for EST: Problems and Methods continued in issue #93, December 1984.

ANNOUNCEMENTS

DESCRIPTION OF A RESEARCH PROJECT

(Editor's Note): The following is a letter written by one of the researchers for this project, detailing the focus of the project and inviting your participation. Dr. J. Ulijn, another of those conducting the research, shared some of the initial research findings with participants at the 1984 TESOL Summer Institute held at Oregon State University in July, 1984. The project is thorough in its approach, and the research should make a significant contribution to the knowledge about what happens in EBE. I urge you to contact Dr. Stalpers for further information.

NEGOTIATING TECHNICAL BUSINESS IN A CROSS-CULTURAL AND CROSS-LINGUISTIC SETTING

In the framework of research into foreign language teaching, the Catholic University of Tilburg and the University of Technology of Eindhoven are doing a study with a view to making explicit the role of language and culture in international negotiations.

The results of a previous survey among Dutch negotiators in the business world have shown that the lack of knowledge of the language and culture of the partner often results in an ineffective negotiation and, in the worst case, prevents the conclusion of important contracts.

Highlighting the problems from a linguistic point of view could contribute to a better understanding of culture contact and could result in practical suggestions concerning language courses for specific purposes. The research findings will contribute to a post-academic course in international negotiations.

The aim of the research is to come to a language description model of negotiations, which makes it possible to identify and explain communication problems arising during this type of discourse.

In this project we have chosen the French-Dutch contact situation, because commercial contacts with the French have decreased in the recent years and, as the negotiators in the above-mentioned survey emphasized, this is caused by a language and culture barrier. In the future, we hope to investigate other languages (Arabic, Japanese, Spanish).

We will compare authentic Dutch-Dutch, French-French and French-Dutch negotiations, taking in consideration the economical and psychological factors. The linguistic analysis will focus on the types of "speech acts" the participants performance (asking, greeting, apologizing, etc.) and at what moment in the interaction. In the second part of the analysis we will describe the linguistic devices used in these speech acts (grammar, word choice, intonation).

Since the study has only just begun, we would welcome any advice, information you may care to forward to me. At a latter stage in this project we may take the liberty of contacting you with a view towards further cooperation.

With many thanks for your interest,
yours very truly,

Judith Stalpers
Eindhoven University of Technology
PO Box 513; 5600 MB Eindhoven
The Netherlands
Telephone (040) 47 91 11; Telex 51163

A CALL FOR ASSISTANCE

The Testing and Certification Division of the English Language Institute at the University of Michigan is preparing a report of studies which have been conducted using the Michigan Test Battery or parts of this test such as the Michigan Test of English Language Proficiency (MTELP) or Michigan Test of Aural Comprehension (MTAC).

The Testing and Certification Division welcomes information about projects which have used the

Michigan Battery in research.

Please direct correspondence to:

Testing and Certification Division
English Language Institute, The University of Michigan
3020 North University Building
Ann Arbor, MI 48109

NATIONAL SYMPOSIUM ON LSP

The First National Symposium on LSP was held under the auspices of the Dutch Association for Applied Linguistics (Anela). It was organized by J.M. Ulijn (Eindhoven University of Technology), F.M. Defesche (Agricultural University of Wageningen), W. Drop (State University of Utrecht) and J.F. Matter (Free University, Amsterdam).

The papers were organized under three headings: 1) theoretical-technical; 2) practical-vocational; 3) educational. Special purpose areas covered included physics, mathematics, news media, technical-commerical netgotiations, technical communications, marketing, needs analysis, and consumer-oriented matters.

The texts of the lectures will be published in the Anela series Toegepaste Taalwetenschap in Artikelen, with a summary in English. For more information on costs and availability, write:

Toegepaste taalwetenschap in Artikelen
c/o Dr. J.M. Ulijn
Eindhoven University of Technology
PO Box 513; 5600 MB Eindhoven
The Netherlands

VIDEO EXCHANGE NETWORK

An international video exchange network, **Reseau Video Correspondence**, has been started by the French organization, B.E.L.C. The project aims at creating an international exchange network where groups or individuals interested in producing video programmes could exchange their products and thus "correspond" with other groups or individuals within the network. The programmes can deal with any subject the producers consider important and be aimed at any group of recipients. Information on the video programmes will be published in the Gazette Video Correspondence. Further information can be obtained from the following sources: B.E.L.C., 9 rue Lhomond, 75005 Paris, France; Bureau d'actionlinguistique (B.A.L.O, Aleksanterinkatu 19 A, 00100 Helsinki 10; and from Tarja Wilson, Language Centre for Finnish Universities, tel. 941-292 882. (Excerpted from Language Centre News, No. 3)

RELC REGIONAL SEMINAR
Singapore, 22-26 April 1985

The Southeast Asian Ministers of Education Organization (SEAMEO) Regional Language Centre (RELC) will hold its 20th Regional Seminar, 22-26 April, 1985 in Singapore. The theme of the seminar is "Language Across the Curriculum".

The objectives of the seminar are:

- to identify current trends in integrating language curriculum with general curriculum in the SEAMEO region and elsewhere;
- to consider how further integration can be effected, for example, ways in which the content and student skills required in other subjects can be incorporated into the language curriculum;
- to discuss how information from the language curriculum might provide guidelines to teachers and developers of curriculum in general subjects, including those who write textbooks, set examinations and produce teaching aids of various kinds;
- to explore the ways in which syllabuses for different languages, and the curriculum materials supporting them, can be coordinated and sequenced so that knowledge and skills acquired in one language can be effectively transferred in the process of acquiring or studying a second language.

Further information and invitations to participate in the seminar can be obtained from the following address:

Director
(Attention: Chairman Seminar Planning Committee)
SEAMEO Regional Language Centre, RELC Building
30 Orange Grove Road
Singapore 1025, Republic of Singapore

COMPETITION FOR WRITING AWARDS

The Committee on Technical and Scientific Communication of the National Council of Teachers of English has announced its fifth annual awards competition for excellence in writing. The competition is open to technical and scientific works published from January 1, 1984 to December 31, 1984.

Entries can be submitted in one of the following categories: Best Book, Best Collection of Essays, Best Article on Methods of Teaching, Best Article on Philosophy or Theory, or Best Article Reporting Formal Research in Pedagogy, Theory, or Philosophy.

Send entries (three copies) by May 1, 1985 to:

Virginia A. Book
108 Agricultural Communications
University of Nebraska
Lincoln, NE 68583

FOURTH ANNUAL CONFERENCE ON LANGUAES FOR BUSINESS AND THE PROFESSIONS

May 2-4, 1985 (Hyatt Regency Hotel in Dearborn, MI). Papers will be presented on the use and teaching of business FRENCH, GERMAN, SPANISH and other foreign languages, as well as commerical ENGLISH for foreign students. The program will include sessions on the use and teaching of languages for various professions, such as MEDICINE, SOCIAL SERVICES, the SCIENCES, ENGINEERING and TECHNOLOGY, LAW and MATHEMATICS. All presentations must be in English and last between 10 and 90 minutes. Guidelines for the submission of abstracts, registration materials and program details are available from the Conference Chairman, Dr. Geoffrey M. Voght, Associate Professor of Spanish, Department of Foreign Languages and Bilingual Studies, Eastern Michigan University, Ypsilanti, Michigan 48197. (313) 487-0178/0130.

ACRONYMICALLY SPEAKING

J.D. Brown
Florida State University

There's a trend that they call ESP.
EAP, EOP makes it three
If you know H_2O,
EST on you'll grow.
ESP SOK, SUC.

ABSTRACTS

The English for Specific Purposes Newsletter exchanges with several other publications relevant to ESP. Included below are summaries and abstracts of articles from various exchanges. They are included to foster information sharing. Please consult each abstract for specific information on obtaining the original articles.

"Don't Let the Approval Process Spoil the Book" by Edward Gold.
Abstracted from Simply Stated No. 49, Sept. 1984.

This article presents guidelines for writing technical books within an organizational setting. It is an approach intended for books written with staff writers and with outside writers. The principles are equally applicable to technical manuals.

General principle:

Select an in-house project leader to coordinate the work of the reviewers and to mediate and arbitrate conflicts between the reviewers and writer(s).

Secondary principle:

Once selected, the project leader's responsibilities are:

1. orient the reviewer's to their expected roles;
2. establish a schedule for reviewer's activities and a system in order to insure adequate and orderly preparation of the written material;
3. mediate and arbitrate between various reviewer's opinions;
4. meet with the writer(s) to discuss the changes consolidated from the opinions of the reviewers.

For more information on this article, write to:

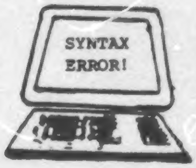
Robbin Battison, Editor
Document Design Center,
American Institutes for Research
1055 Thomas Jefferson Street, NW
Washington, D.C. 20007

"Aircraft English Courses for Customers" by Jennifer Boncey.
Abstracted from Language Training No 5, no. 1.

This article deals with course objectives, constraints and evaluation concerns for designing an in-company language course for customers of a German aircraft manufacturing company. Boncey highlights several issues often noted in language training for industry. First, lacking a precise definition of objectives, and having to meet specific time demands, the course is designed with both general and specific language objectives. Second, passing (or not passing) general academic language evaluation exams is only partly indicative of one's ability to communicate in a technical setting, either as a student or as a technical instructor. Third, in-company training programs offer several advantages: a) cost effective, high quality; b) full time language learning; 3) greater student motivation; 4) greater facility in obtaining realistic resources; 5) facilitation of language and technical expert dialogue.

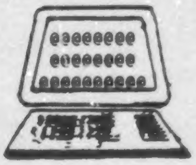
For more information on this article, write:

Adrian Pilbeam, Editor
Language Training Services
21 Wignore Street,
London W1H9LA



BOOK REVIEW

English for Computer Science
Norma D. Mullen & P. Charles Brown
Oxford University Press, 1983



English for Computer Science (ECS) is a classic ESP reading text. It is designed to teach a little bit of the content area and a lot of the English skills necessary to students studying that content area. Each chapter starts with a one to two-page reading on a topic that would be covered in a college-level Introduction to Data Processing course. For example, three of the readings were "Hardware and Software", "Minicomputers" and "The Central Processing Unit".

Between 5 and 8 different kinds of exercises on reading skills follow each reading. The exercises include not only finding specific details and locating the main idea, but also identifying pronoun referents, deducing concepts from direct and indirect clues in the text, getting meaning from context and transferring information from paragraph form to tables and vice-versa. It is good to see such a variety of exercises, and exercises that require students to pay attention to meaning as well as to specific lexical items.

After each chapter there is a grammar/vocabulary "Focus" section. These sections are printed in green ink, presumably to distinguish them further from the readings and reading skills sections. The Focus sections include topics like contextual reference, listing, adding information and contrasting.

There are a variety of exercises in these sections too, working on word forms, transition and other markers, vocabulary contrasts and information transfer, among other vocabulary and grammar skills.

The use of visual effects in this book is impressive. The photographs at the beginning of each section would pique the reader's curiosity as well as set the stage for the reading to come. Boldfacing was used extensively to mark important vocabulary words. There were a lot of tables and boxes to fill in; graphics were part of almost every reading. The green ink in the Focus section served both to mark off that section and to enhance the reader's interest in a potentially "dry" topic.

I like this text, and would use it in an English for Computer Science class. Like the authors say, the text has between 45 and 60 hours worth of material, when the text is used purely as a reading course. Because of the amount of specialized vocabulary in the book, I would hesitate to use it in a general reading class unless the students in that class had a great deal of interest in data processing. The authors say the text could be used for self-study, with the Answer Key (not reviewed). I feel a student with some background knowledge in computer science could use the book for self-study, but I would hesitate to set a rank beginner down with nothing more than this text and an answer key.

Like other ESP texts, English for Computer Science can be used by a teacher who knows little of the subject area. As in any ESP class, of course, the more the instructor knows of the content area, the easier it is to teach the associated English and to expand beyond the limits of the textbook. The minimum requirement for effective use of this text in an ECS class would be an interest in computers and computing on the part of the teacher; someone with a mistrust of computers would probably have a very hard time getting through this amount of specialized vocabulary.

Reviewed by: Deborah Healey
English Language Institute
Oregon State University

YEAR 8 SUBSCRIPTIONS

YEAR 8 SUBSCRIPTIONS WILL COVER THE PERIOD APRIL 1984 ISSUE THROUGH MARCH 1985 (ISSUE 96). MID-YEAR SUBSCRIPTIONS ARE BACKFILLED TO APRIL 1984 ISSUE 85).

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Issue #93
December 1984

English For Specific Purposes

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FROM THE EDITOR

This issue features the conclusion of J.M. Ulijn's article: "Teacher training for EST: Problems and Methods by J.R. Ewer". The first part of the article appeared in the November issue. Ulijn began with an introductory discussion of the role of needs analysis in the enunciation of student and teacher profiles. For the student, he indicated type of discipline, L_1, L_2, and order of priority of skills as important factors. For the teacher, Ulijn indicatd two important variables: balance between linguistic and specialized content training and native or non-native speaker of English . In this regard, he drew a parallel between the training of a translator and that needed by the LSP teacher. Ulijn then reviewed attitudinal, conceptual, linguistic, and psycholinguistic factors that pertain to successful EST teacher training.

Also in this issue is a short article by Jean DeFaye on ESP in France. DeFaye was at Oregon State University in the spring of this year as part of a professional exchange agreement between Oregon State University and the University of Poitiers, one of several universities world-wide where OSU has study abroad/exchange programs. The article provides a broad overview of the French ESP situation, with special reference to the situation at the University of Poitiers. We hope to share with you a more expansive presentation in the near future.

This issue concludes with regular features. A word of explanation is appropriate with regard to the length of the Clearinghouse update. Although the ESP Newsletter exchanges with a number of other relevant publications, these publications have not been officially a part of the Clearinghouse. However, we've received a number of inquiries about these exchange publications and so are now incorporating them into the Clearinghouse. To better facilitate cooperation and information sharing, we will highlight selected articles from these publications as time and space permit.

Comments on: Teacher-training for EST: Problems and Methods by J.R. Ewer

Reading books is certainly not the only way to find out what science is about and how scientists operate. Science is also done at a non-verbal level. A recent study of job literacy showed that 42% of professionals in industrial business and 60% of US Navy Personnel read in order to do and learn (Mickulecky, 1982). It is dangerous for EST-teachers to use the same intelligent-layman's books on science & technology with their EST-students as they would use to introduce themselves to the field. There are two reasons why this is so:

1. the subject matter is often rendered out of date by recent research;

2. the popular style of intelligent laymen's books might be easier for natives who have a knowledge of the common language. Linguistically this style is more complex for non-natives who know the field and are used to its restricted EST-register. Real documents mobilize better their scientific background in understanding professional texts.

Our plea for authentic setting and real communication in the classroom without too many formal and artificial exercises may receive support from another source of evidence: Swales (1980) concludes that although EST textbooks have been purchased in considerable quantities, they have been surprisingly little used. LSP-teachers apparently notice that most of the prefabricated texts and exercises, not withstanding a clear teaching conception, simply don't work even with highly motivated LSP-students. For that reason Odette Boys' suggestion (1982:3) to use more than one textbook is not an ideal solution either. I admit that "real-life" exercises in a varying typology should be helpful. That is why as a group of experts of the Council of Europe we decided to develop a catalogue of teaching suggestions for LSP in this spirit rather than another LSP-textbook (Harding-Esch, 1981).

This "real-life" teaching, of course, should reflect any psycholinguistic and linguistic evidence of the EST communication process, as we have suggested for LSP-reading (Ulijn, 1981). So many questions in this area remain unsolved, why not share them with the LSP-students themselves? Short discussion on EST needs and skills, if necessary in L_1 could sharpen the insight in their own communication process and make them more responsible for their own progress.

Let me conclude that we badly need an efficient LSP-teacher-training all over the world with EST as a special case in point. As Jack points out (p. 79) it opens up important aspects of general culture of which science and technology is an essential part. So, it could be an enrichment of the university curriculum, since it fosters interdisciplinary thinking. These courses need more time in an organizational setting adapted to the typical structure of a country's educational system. Jack Ewer's own work on this topic deserves a continuing effort to develop the interesting field of teacher-training.

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Ulijn J.M. and F. Heynick. Forthcoming. Survey of foreign language instruction for non-language-and-literature majors at Dutch Universities, submitted for publication.

EFL-ESP at the University of Poitiers

Since December 1974 the University of POITIERS (FRANCE) has been linked to the OSU system of education by a convention involving staff exchanges. As an instructor of English at the Faculty of Science in POITIERS, I participated in the programme for the duration of the spring term 1984 at Oregon State University in Corvallis. My interests and research being in the field of EST, I established contact with members of the staff at the English Language Institute in order to exchange views on EFL-ESP teaching.

Teaching EFL in POITIERS

The teaching of English language and literature has been traditionally carried out at the Faculty of Letters, mostly for the benefit of students specializing in English. The syllabus is oriented towards teachers; formation places great emphasis on the acquisition of literary skills such as essay writing and literary criticism. The increasing role of English as a tool for communication has led the other faculties to include English in their curriculum along with their particular disciplines. This awareness was particularly acute in the Faculty of Science, where English has been a compulsory subject since 1974. Today, we continue to develop an increasing number of ESP courses as we introduce more specialized degrees in science.

Moving towards ESP

At the undergraduate level, the Science faculty students attend English classes; though the number of hours is comparatively small during the first two years. The purpose of the English course is to prepare the students to read, write and communicate in modern English. It includes an overall review of English syntax based on textbooks or scientific articles and aural comprehension exercises with the help of audio-visual equipment. Students have a marked preference for material in connection with scientific subjects. Authentic documents are used as much as possible.

Introducing ESP at postgraduate and advanced research levels

At the postgraduate level, the students specializing in one scientific subject are asking for a more ESP-oriented course, e.g. Water Treatment, Electronics, etc..

There is also an increasing need for researchers to master English as a tool for publishing in scientific journals. Researchers' training is not officially covered by any specific programme and team work between researcher and English instructor is done entirely on a voluntary basis.

Problems in Teaching ESP

1. Lack of homogeneity in student population.

Most of the French students have studied English in high school. However, a sizable proportion of students who enroll in the Faculty of Science are not proficient enough in English, while the others are ready and eager to start ESP. Remedial courses have been set up for the former groups.

2. Lack of Theoretical research and ESP

Posts in the field of ESP in small and medium-sized universities are mostly full time teaching posts with no provision for theoretical research.

The potentials for ESP teaching are far from being fulfilled. The demand for more teaching hours, and for team work in research areas far exceeds the resources in money and in teaching posts.

3. Lack of teacher training programs

As the scope for EST expands, more teachers would be needed, but the shift from the field of literary teaching to ESP has been insufficient. Also, at present, programmes for training ESP teachers are virtually non-existent.

CONFERENCE REPORT

REPORT ON THE SECOND ANNUAL COLLOQUIUM ON ENGLISH FOR MEDICINE AND ALLIED HEALTH SCIENTISTS

The Second Annual Colloquium on English for Medicine and Allied Health Sciences, held at the 1984 TESOL Convention in Houston, Texas, focussed on the program development. The first colloquium, at the 1983 convention, focussed on research. A more general colloquium has been proposed for the 1985 convention in which both research and program development (including evaluation) are included.

Below are summaries of the presentations at the 1984 colloquium on program development:

Jerome Ford presented a needs assessment of the communication problems of foreign M.D.'s and medical practitioners in the U.S., identifying five chief causes of communication problems on the part of the practitioner: 1) poor pronunciation or enunciation, 2) limited amount of verbal communication, 3) insufficient cultural knowledge attached to language use, 4) insufficient knowledge of terms and idioms, and 5) insufficient medical skills and knowledge. He then proposed specific solutions for the first four situations.

Niguel Bruce (in his paper presented by Diane Adams-Smith in his absence) applied research, i.e. discourse analysis of clinical research papers, to the teaching of report writing. He found that the most widespread problems lie in the following: 1) multiple modification of noun phrases, 2) the need to maintain accurate reference and attribution, and 3) the need to realize that those sections traditionally regarded as "easy to write up" in fact present the greatest problems in achieving the degree of scientific accuracy required in the Methods and Results sections of a report.

Moya Brennan described a variety of coordination techniques that can be used by the English language teacher working with students who, at the same time, are being trained in their specific professions in the Medical and Allied Health field. She noted that the ideal situation for developing coordination techniques is one in which the teacher has the time, resources and opportunity to do a needs analysis or at least has the active cooperation of the specialist staff. But unfortunately the reality is this: the English language teacher is frequently faced with a situation in which, although the specialist staff may be willing to cooperate, in fact, both parties may be restricted by time and scheduling. The techniques she presented for coordinating under such conditions are designed to allow the teacher some confidence that the students' needs will be met.

Betty Lou DuBois described poster sessions in bio-medical conferences to help teachers prepare students for effective participation in conferences. The effective use of attention-getting mechanisms has the popularizing effect of attracting non-specialists. Once a passer-by is lured to the poster, popularization occurs through the relatively reduced content of the poster, which encourages an exchange of information/ideas. DuBois described display techniques for attention-getting and some of the language functions frequently involved in the accompanying discussions.

While the presenter for a fifth paper was unable to attend at the last minute, her topic is of concern to all developing curricula in ESP. Glynis Saunders has written about the need for flexibility in taking into account 1) varying needs/levels of each intake of students in English course for medical students, 2) the changing ratios of science to English over the first year, 3) varying order of science lecture topics from year to year, and 4) physical constraints on course implementation.

by: Margaret van Naerssen

BOOK REVIEW

The Natural Approach: Language Acquisition in the Classroom
Stephen D. Krashen and Tracy Terrell
Alemany Press, 1983

From December to June, 1984, I was in Rabat the Capital of Morocco as a Fulbright teacher of English at the University. Having read Krashen and Terrell's Natural Approach before I arrived, both on the plane and even before I left, and then having read it again since acquiring a place of residence in this Arab-French-African land, the thesis is uppermost in my mind. Because of the approach so well outlined in the book, I have been constantly aware of experiencing the things outlined by the two authors. This has been especially true in reviving my own dormant French. It had been eight years since I had spoken French. The authors bring home to me constantly—as I am immersed in a French-speaking culture—that comprehension precedes production and production emerges in stages: non-verbal; then yes and no; then a few words; and finally sentences, etc... The silent period referred to by Krashen and Terrell was something I went through eight years ago so that it is an experience of the past. At present I am just speaking naturally, not correcting errors. My progress is based on topics and certainly not based on grammar review. My own experience confirms the view of Krashen and Terrell that grammar will come later. I am attempting, as suggested by the book, to lower my affective filter by having as little anxiety as possible. I do this by talking informally with the woman who cooks for me, the secretaries at the university, the boy who brings the teachers hot tea. I would have a high anxiety level if I had to speak proper French to my university colleagues from the start of the semester. That will come later. By talking to those I feel comfortable with, I am learning faster. According to Krashen and Terrell, speakers should not be forced to speak if they are uncomfortable. I am following their advice.

This introductory experience is told as an application of the ideas found in The Natural Approach. Krashen and Terrell's book, in the making for seven years, was thoroughly tested and enthusiastically received by teachers and students in its pre-publication form. I feel the book will be as enthusiastically received by those reading it now for the first time. Both authors are honest in admitting that this is not the only approach, nor is it entirely new. In many ways it is the natural, direct method rediscovered. It is a simplified approach which can be adapted to any number of situations. It can be used with all age levels. An advantage is that no specific equipment or training is required. Most significantly, the latest research in the field supports its rationale.

The book presents an excellent review of other methods beginning with the grammar based approach and the message is clear throughout the book that any reduction in the overly-used, obsolete, grammar-based methods will improve teaching. This is repeated many times. The authors make a meaningful point in stating the importance of understanding a speaker's messages to an individual—not the value of understanding a complicated, rapidly delivered radio message. (Too often we tell our students to listen to the radio when it is beyond their ability, so this point was well taken.) Understanding messages— this could be the title of the book—is the way language is acquired. This is the central theme made by Krashen and Terrell.

In the very first chapter, Krashen and Terrell rightly state that listening and reading must come before speaking and writing and that the most important thing is to help students to understand what is being conveyed to them. It follows that the teacher should always use the target language and select topics of high interest level at all times. The authors insist on creating a pleasant atmosphere (a necessity not a luxury) so that the affective filter of the students is as low as possible. There should be no force before a student is ready to speak and read. The course syllabus, state the two linguists, must consist of communication goals (in a later chapter the step by step development of syllabi is described). If errors do not interfere with communication they need not be corrected.

One of the best chapters in the book is the second, which reviews theories—referred to by Krashen and Terrell as "hypotheses or guesses"—of second language learning in the last ten years. Sub-conscious acquisition means that there is a low filter, hence the learner is open to input. There is not a solid wall of opposition to language learning. This is the very key to the "natural approach". The opposite of acquisition is "explicit" learning. Chapter three treats implications of second language learning. Objects such as pictures, and the use of easy vocabulary are noted. The authors state that only certain students profit from grammar instruction. I was surprised that Krashen and Terrell even admitted that certain students profited from grammar presentations.

The three chapters which are the heart of the book (four, five and six) concentrate on activities to foster acquisition rather than learning. Again these are activities which attempt to lower the affective filter. The authors indicate the importance of assessing student needs first— a point not made enough in ESL texts— so that the students will get material on their level and not things which are too difficult. Reading material must be easy and timely. The idea of understanding messages as the heart of the learning process is made again numerous times in these chapters. Suggested activities have this point in mind when they suggest that issues revolve around the daily life of the students— their opinions, hopes for their future, sports, TV programs and movies seen. Topics should be non-stressful.

The chapter on testing and classroom management (chapter seven) is practical. Testing is indeed a sensitive issue to those using the natural approach because students become very uptight in testing situations. This makes their affective filters high due to tension caused by examinations. The strength of the filter, state the authors, is often beyond the student's control and it is therefore up to the instructor to provide the right kind of non-anxious testing program. The authors suggest that tests be given which promote the use of acquisition activities. Some types of tests include: first, listening comprehension. This is a very important kind of exam since the natural approach is based on acquisition through comprehensible imput. The authors give the following example for testing: show the students several pictures. Describe one in a simple manner, and see if the student knows which one you are describing. A second examination concerns a speaking exam. While following a student around and listening to him/her is ideal, it is too time consuming. The authors suggest that you monitor a conversation between two students; that you listen to the student telling a joke or story; that you have them give formal talks or speeches; that the students be involved in debates and arguments. In all of these examples grading is difficult and tends to be impressionistic. Whether one should correct students after an exam is open to question. Krashen's view is that overt correction of speech even in the best of situations is likely to have a negative effect on the learner. It is not encouraged even after an examination.

I find The Natural Approach: Language Acquisition in the Classroom one of the best introductions to the Monitor theory. There is a wealth of information and while repetitious in places, these parts can be borne since there is not another book available of this type. Krashen and Terrell have done ESL teachers a great service by gathering together the approaches covered by a sort of umbrella term, "the natural approach" and publishing them under this title. I was impressed by the calibre of those who helped with the book and are listed in the preface.

The goals of the natural approach should be told to the students, state the authors, since often if students are not memorizing words they think they are not learning. This point is a good one.

The bibliography is extensive (Krashen is well represented) and the footnotes are thorough and helpful. Vocabulary—caretaker speech, foreigner talk, TPR, interlanguage talk, etc... are well defined. The lack of an index is a drawback. Perhaps, a second edition could include one.

In conclusion, the book assumes that acquisition activities are absolutely necessary in using the natural approach. Learning activities should come later. On p. 148 the authors go so far as to spell out that they recommend 80% of the courses should be devoted to acquisition activities and 20% to learning activities. I think that putting a quota on this is perhaps over analyzing a good idea. On the whole the book is valuable. If the "natural approach" idea isn't new, Krashen and Terrell have at least drawn it altogether in one place. From my own "French revival" experience and from my experience using this approach with Moroccan students the past year, I realize that the ideas, though simple, make good teaching sense. That everyone is an acquirer in ESL seems obvious after reading Krashen and Terrell's fine volume.

Reviewed by: Marion Casey
University of San Francisco

CLEARINGHOUSE UPDATE

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LES LEVBEN 85
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LANGUAGE FOR SPECIFIC PURPOSES

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  3. How: individual - groups teacher piloted, machine piloted.
  4. Second/Foreign language

B. MATERIAL DESIGN IN FUNCTION OF DEFINED OBJECTIVES
Contribution of Learning & Linguistic Theories
  5. Learning Theories
  6. Linguistics: Syntax, Semantics, Text Linguistics
  7. Terminology
  8. Contrastive Analysis

C. DIDACTIC USE OF RESOURCES: AUTHENTIC SAMPLES AND MEDIA
  9. Assessment of difficulties
  10. Motivation
  11. Oral comprehension & production
  12. Text comprehension & production
  13. Video programs and LSP

D. COMPUTER IN LSP
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    - evaluation of available packages

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CORRECTIONS

Issue #85 - NEW PERSPECTIVES, VESL: An Annotated Bibliography was incorrectly reported as being authored by Gustavo Velasquez. It should have read Gustavo Valadez.

Issue #87 - "The English of Medical Literature Research Project" was incorrectly reported as authored by Francisco Salagar. It should have read Francoise Salager.

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English For Specific Purposes

SPECIAL ISSUE: ESP IN SOUTH AMERICA: VENEZUELA, PART I

GUEST EDITOR: FRANCOISE SALAGER; UNIVERSIDAD DE LOS ANDES

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Note from the Guest Editor

In this issue of the ESP Newsletter about ESP in Venezuela, the topics covered range from critical read-ing in ESP texts, to a difficulty analysis of scientific-technical literature at advanced levels of English instruction, and to the proposal of a model for writing components in English for Academic Purposes. Although reflect the general interest and the concerns raised in Venezuela by this relatively new branch of English teaching.

EDITORIAL

ENGLISH AND THE SCIENTIFIC WORLD

In the history of Western culture, human beings have always felt the need to communicate and to share the fruits of the spirit, arts and sciences, beyond the limits of their geographical boundaries. Thus, in various eras, centers of universal attraction emerged for artists and learned people of different latitudes: Alexandria, in the hellenistic era of Greek civilization; Rome during the Roman Empire; Padua, Bologna, Granada, Paris in the Middle Ages, all were centers which fulfilled this noble function of concentration and irradiation of knowledge, Meccas assiduously visited by the finest spirits of the world. But communication is impossible, at least for the sciences, and to a certain extent for the Arts in general, without language, and languages have been and still are very different. Thus, the adoption of a common language was a necessity and the expansion of a particular language, either for political, economical, geographical or military reasons, served this very purpose. For instance, during the hellenistic era, Greek was the language employed for learned communication; Latin predominated in the time of the Imperial Rome as well as during the Middle Ages; romance languages blossomed during the Renaissance, and French took the leading role as the language employed by all the courts of Europe and by diplomats in Africa and Asia Minor during the European monarquical absolutism. Thus, all the above mentioned tongues have, at some stage, been hegemonic languages in science and literature. In the XXth century, and especially in the second half of it, English has progressively converted itself into the world scientific language, and the fact that this germanic tongue has become the key to much of the world's knowledge—knowledge that is mainly to be found in print—has, after all, become an international cliche. This means that a significant percentage of the bibliography extant in any scientific field is written in English, and, too often may be, in English alone. This also means that the prevailing official language in any scientific congress anywhere in the world has become English; so that scientists, or those who aspire to be such, pursue studies and training in English speaking countries, particularly in the United States of America.

Thus, the necessity for a certain proficiency in English, especially for those who wish to keep abreast with the latest research being carried out in their respective field of study (as well as in any other sphere of knowledge) is apparent. Nevertheless, the fact is worthwhile emphasizing that this general importance reaches critical proportions in Third World nations. If the scientists and researchers of these countries are unable, at least, to read the literature written in English in their field of study, it will be impossible to reach the goals proposed for development and equally, it will be impossible to reach other more modest purposes. The considerable, although still insufficient, endeavors which are being made in this sense in numerous nations of Asia (cf. ESP Newsletter No. 51-52) and Africa (cf. ESP Newsletter No. 39-90) and, to a lesser extent, in Latin America, for the teaching and learning of scientific-technical English in and out of the universities, is demonstrable proof of such an assertion.

However, in Latin America, it does not seem that this concern occupies the place it should, in spite of all the efforts which have been made lately, especially in Chile (ESP Newsletter No. 79-80), Colombia (ESP Newsletter No. 81), Brazil (ESP Newsletter No. 75-76) and Venezuela. Indeed, a very small proportion of technicians and scientists of this continent have a developed capacity to comprehend scientific-technical literature written in English, and an even smaller proportion is able to speak the language (cf. Gmunder's article about the teaching of English as a foreign language in Peru).

In Venezuela, this deficiency is evident in the relative apogee of post-graduate courses in Venezuelan universities. A physician or an engineer who is unable to read and understand written English cannot suc-cessfully pursue postgraduate studies, since the main source of bibliographical reference is inaccessible. It may thus be deduced that it is an urgent—if not compulsory—target for researchers, professionals, technicians and skilled workers of developing nations to actively, fluently and MEANINGFULLY read the spe-cialized literature in tneir field, which is currently written in English. An effort is then needed to adapt the higher education institutes to cope with this important task in Third-World countries.

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ESP IN THE VENEZUELAN CONTEXT: GENERAL CONSIDERATIONS

Areas of Specialism. In Venezuela, the majority of ESP courses were initiated during the last decade. They are now being taught in the following fields, both at the undergraduate and graduate levels: medicine, health sciences (bioanalysis, nutrition, dietetics and nursing), sciences (biology, geography, chemistry, mathematics physics), engineering, political sciences, humanities (arts and history), economics and forestry.

Course Objective. The course objective is mainly reading comprehension in scientific-technical literature written in English. Indeed, most science undergraduate students enrolled in English classes, are already studying specific subjects and are frequently given, sometimes from their very first year of studies, reading assign-ments in English; at the post-graduate level, of course, the consultation of appropriate bibliographies—almost exclusively written in English (cf. Editorial)—is unavoidable. Thus, the students (whether graduates or undergraduates) need to become familiar with the register of their respective field of study and with its fundamental lexical layer (cf. lexical stratum definition in Akirov and Salager's article).

Material Used. Published ESP textbooks are widely used but are usually complemented by locally (or nationally) produced materials[1]. This latter type of manuals mainly recur to authentic linguistic texts (with some edit-ing) selected from a language-teaching pedagogical perspective, i.e., materials which can serve as a basis for the development and practice of particular linguistic problems, either at the sentence or word level. Moreover, these "teacher-prepared" texts are usually graded according to specific conceptual, lexical and morphosyntactic problems peculiar to a given field. Space restriction, the enormous variety of this kind of texts coupled with the difficulty in obtaining such "home-made" material, do not allow us to include representative samples of such activities.

Problems. The complaints generally formulated by Venezuelan ESP teachers, both at the undergraduate and graduate levels can be grouped as follows:

a) Bibliography: lack of adequate and up-to-date bibliography on psycholinguistics, on the teaching of reading in general, and on the teaching of ESP in particular.
b) Time limitations: the mean available time for ESP instruction ranges between 90 and 100 hours (3 contact-hours weekly). In some cases it does not even reach 80 hours. This limited amount of time does not not really allow the teacher, especially at the undergraduate level, to reach a satisfactory level and to fulfill the purpose of the course itself.
c) Students' L_2 knowledge: the students' poor knowledge of English in spite of the five years of language instruction received at high school, is an obstacle to the rapid success of the course. Indeed, ESP teachers must, in most cases, start from the very beginning, as if the students have never attended a single English class.
d) Students' L_1 Knowledge: lack of grammatical knowledge in the students first language (Spanish); has a negative influence on the teaching and learning of English grammar, especially morphology.
e) Reading skills: poverty of the basic reading skills in L_1 (e.g., anticipating, guessing the meaning of the unknown lexical items through context, summarizing, distinguishing between main ideas and supporting details). Besides, students do not feel confident unless they know the meaning of every single word in the text, and they think that to understand a written passage, they need to translate it word by word[2]. The way students read leads them a) to start with a detailed understanding of the text and then move to a global understanding; b) to be reluctant to understand that the meaning of a text is much more than the mere semantic sum of its individual constituents; c) to become dependent on understanding every single sentence in the text, even when this is not necessary to fulfill their reading purpose, with the result that they will tend to read all texts at the same speed, and d) to be unwilling to infer the meaning of sentences or paragraphs from what precedes or follows. All this, of course, makes the teachers' task more difficult because the above mentioned skills, which are indispensable to meaningful reading, cannot be transferred to the skill in the foreign language and have to be taught, in most cases, from scratch.
f) Motivation: lack of student motivation, chiefly at the undergraduate level since the ESP courses are usually taught in the first two semesters of the career when the students do not always see the relevance of this linguistic activity. It appears to the students to be an unwelcome distraction from their main interests, and they pay no more attention to it than is necessary to pass the exams. This This attitude of rejection of the study of languages shown by some university students may be due in part to the overcrowded curriculum in their specialized field.
g) Funds: lack of funds and resources for carrying out research projects and making known their results on an international scale (congresses, symposia, conventions, etc.)

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FOOTNOTES

1. Such is the case of the book entitled Ingles para Medicos by Francoise Salager which is currently being used as a textbook in the ESP post-graduate medical courses.
2. This does not mean that translation should be definitely abandoned as a teaching procedure because, at times, it is a useful and convenient exercise.

CRITICAL READING AND ESP STUDENTS

A person learning to read a foreign language might be compared to a child passing through Piaget's or Bruner's stages of development: he first goes through a "concrete" (Piaget) or "iconic" (Bruner) stage in which visual impressions and concrete aspects as definitions of specific words and literal comprehension are foremost, and later passes on to a "formal operational" or "symbolic" stage in which inferences and and other more abstract concepts acquire importance. There is, in fact, physiological evidence to support this idea. Obler (1981) found that in tachistoscopic recognition of second language words for beginning students, the right hemisphere of the brain (the one which processes perceptual operations) dominates; for intermediate students, neither hemisphere dominates; and for advanced students, the left hemisphere (which deals with language, logic and general analytic processes) dominates. Bakker (1981) cites evidence demon-strating that slow readers show right hemisphere dominance because they concentrate on the perceptual form of words, while fast readers show left hemisphere dominance since they focus on meaning.

From these and other recent investigations, it becomes evident that reading is a much more complex process than was once thought. Teaching reading is not simply a matter of teaching a student to speak a language and expecting that the reading process will follow naturally, as some proponents of the audio-lingual method believed. Efficient reading requires special training. There are two main areas in which this training should concentrate: language skills and reading strategies. Regarding language skills, the reader must have certain basic knowledge in the areas of vocabulary, syntax and discourse analysis; regarding reading strategies, he should be familiar with the techniques of skimming, scanning, reading for reading for complete understanding and critical reading.

Whether looking at reading from the point of view of levels of student ability (beginner, intermediate or advanced) or of reading strategies, critical reading is one of the final stages in learning to read, for it takes the reader one step beyond reading for complete understanding. The reader must not only compre-hend what the author has to say, he must also react to it. He must utilize his personal experience and judgment to manipulate the information presented by the author, relate it to other information, evaluate, criticize, and apply it to new situations. It is the most difficult and the most important stage to reach. Exactly what is critical reading? Harrison and Dolan describe eight subskills of reading. They call the highest level "evaluation" and define it as the "the ability to make a judgement or come to a decision, after assessing the content of a passage and setting this against knowledge gained from previous experience". This definition is similar to Benjamin Blooms' concept of evaluation as the most advanced level in his taxonomy of educational objectives. In my opinion, however, this definition seems to separate the process of reading from the process of evaluating. It seems to say that one first reads, then evaluates. I prefer the definition of critical thinking given by Hudgins (1977:178). Hudgins says that critical think-ing involves **"an attitude or a disposition to search for evidence which bears on an an argument or the conclusions drawn from the argument"**. Critical reading, I believe, involves the state of mind of the reader. It implies a constant interaction between the author and the reader, and therefore must be intricately involved in the reading process itself, not something added on at the end.

At this point, some people might ask the following question: If critical reading does in fact involve a state of mind of disposition, is it something one must be born with or can it be taught? Hudgins cites a number of studies carried out at the elementary and secondary school levels (Morgan & Carrington, 1944; Hyram, 1957; Fawcett, 1938; Thelen, 1944; etc.). Almost all of them showed higher scores in reasoning and critical thinking in the experimental groups participating in programs for teaching critical thinking skills.

The question that logically follows, then, would be this: Now that we know we can teach critical thinking, should we teach it? The answer is obviously YES. First of all, as the studies cited above show, the capacity for critical thinking seems to be innate, but training is effective in developing it and helping the student learn to apply it in specific situations. Second, critical thinking and critical reading are particularly important skills for the future scientist (which most of our ESP students are). Through the evaluation of various types of reasoning used by different authors, the student will learn how to formulate hypotheses for his own future investigations. This training in evaluation through analysis of the work of others will also help the future scientist be more stringent in criticizing his own work, and therefore more successful in his own research, since the success of scientific research depends on the researcher's capacity to defend his work against criticism.

The final important question then is "How". How can we help our students to develop the skills necessary for critical reading? Basically, we must provide situations that encourage insight and allow the pupils to develop these skills on their own. To do this, the teacher should contribute in three main areas: (1) class atmosphere, (2) class activities, and (3) reading materials.

Class Atmosphere. The first thing that the teacher must do is create an atmosphere conducive to learning. This is particularly important in a critical reading class because here the student is not simply applying formulas or repeating memorized information. He must express opinions, take risks and learn to ignore the impulse to always be correct. The teacher should create an open and secure environment by letting the students feel that their ideas are valid and valuable, and in fact, in ESP classes, the student's knowledge in his area of specialization is frequently greater than the teacher's. The teacher should therefore make it clear that they are there to share knowledge - the teacher, his knowledge of language and reading skills, and the students, their background knowledge of the subject matter being read.

If the class is large, dividing it up into smaller groups can help contribute to the secure atmosphere. Students may feel freer to participate actively and express opinions in small groups than before a large class. Also, having to convince other group members of one's own point of view may help students clarify their ideas. And finally, students are able to see the same idea from several different perspectives, not just that of the teacher explaining the author's reasoning.

Another advantage of group work is that the students can advance at their own rate. In creative or analytical work, one frequently needs an "incubation" period to sort out ideas. Many teachers, impatient to "get through the lesson", are not always sensitive to this need and frequently end up by analyzing the reading for the class. Group work gives the students time to work things out by themselves.

One final point must be made clear to the students before beginning any activities in a critical reading class: Print is not always infallible. No assumption is beyond examination. In science, justification is based on the probability of truth as demonstrated by an appropriate argument. Any error in the premises of the argument or the reasoning which connects the premises and the conclusion invalidates the conclusion reached. The reader should therefore always maintain a skeptical attitude.

Class Activities. In order to critically analyze a reading selection, the reader must have two things: (1) sufficient background knowledge to judge the probable truth of the premises and conclusions presented, (2) appropriate reasoning skills to evaluate the logic of the author's argument. Class activities should be directed toward developing these two areas.

Regarding background knowledge, the teacher might assign students to do some outside research on the topic before assigning the reading. I also find it helpful to have a brainstorming session in class before the students read the selection. This fulfills several functions. First, students learn from each other by sharing background knowledge about the reading topic. This helps to equate the class on this point before they actually begin to read. It also helps the teacher to assess the class level on this particular topic and to encourage self confidence in students who may be much better in their specialty than in English.

But the brainstorming session covers more than just what the students already know. We also bring out questions about what they want to know. In this way, students begin to realize the vital importance in science of asking the right questions. And finally, we discuss any personal opinions or hypotheses they may have about the subject. In expressing these ideas students are encouraged to give reasons to support their opinions. In this way they come to realize the importance of building hypotheses on sound bases. They also learn that by clearly analyzing their own position before exposing themselves to new ideas, they will be much less easily swayed by the author's arguments.

Many books have been written about logic, scientific reasoning and methodology of investigation, and while it is important to remember that we are teaching reading and not philosophy of science, there are a few points which should be stressed to help students critically assess the logic present in scientific readings. First, the reader should ask himself why the author wrote this article, what ideas he wanted to communicate, and for whom he was writing. The reader should be able to identify the hypothesis or conclusion presented by the author. Once he has identified this main idea, he should look for the evidence presented to support it and analyze this evidence. Is their bias in the evidence? Is the author guilty of overgeneralization? Is the source of the evidence reliable? Is it ambiguous, open to more than one interpretation? Are there specific conditions which must be met in order for the evidence to be considered valid? Is the relationship between the variables one of cause and effect or simply of correlation? Is the evidence relevant to the argument and sufficient, or are there important omissions?

Once the evidence or premises of the argument have been analyzed, the reasoning utilized to relate these premises and the conclusion should be examined. There are two main types of reasoning, deductive and inductive. However, the important point to consider is not that one goes from general to specific and the other from specific to general. The important point is the degree of certainty of the conclusion in each type of argument. A good deductive argument guarantees the truth of the conclusion; but a good inductive argument guarantees only a high probability of the truth of the conclusion.

Let us look first at deductive reasoning. For a deductive argument to be valid, the premises (or evidence) must be justified and the connection between the premises and the conclusion must be appropriate. Deductive arguments frequently appear in the form of conditional statements:

> If Jones is vaccinated against poliomyelitis, he will not contract the disease. Jones was vaccinated. Thus, Jones will not get poliomyelitis.

This is a typical example of what is called "affirming the antecedent": If A, then B. A. Thus, B.

> Students should be given special help in recognizing invalid deductive arguments such as: If Jones is vaccinated against poliomyelitis, he will not contract the disease. Jones did not get poliomyelitis. Thus, Jones must have been vaccinated.

This argument is called "affirming the consequent": If A, then B. B. Thus, A.

It is obvious that the consequent (not contracting poliomyelitis) could have been due to other causes (such as lack of exposure to the disease), and not necessarily to a vaccination. This argument must therefore be considered invalid because, though the premises are true, the conclusion reached is not a logical consequence of the premises and cannot be confirmed from the information given.

However, the most common line of reasoning in science is not deductive but inductive. The reason for this is that in deductive arguments, the conclusions contain no information other than that already presented in the premises. Inductive reasoning, on the other hand, is knowledge expanding. In inductive arguments, the conclusions contain more information than all the premises combined. The scientist employing inductive reasoning observes and tests specific examples of a species or a phenomenon, and, based on these observations, arrives at a general conclusion regarding the species or phenomenon as a whole. Since the scientist is making generalizations to include phenomena he has not directly studied, it must be emphasized that the truth of the conclusions is only probable, not guaranteed as in deductive arguments. The degree of certainty which can be attributed to these conclusions depends on the conditions under which the observations or experiment were carried out, for example, the selection of the sample, the presence of adequate controls, the appropriateness of the statistical analysis, etc.

The hypotheses tested by inductive reasoning can be theoretical or statistical. An example of a theoretical hypothesis would be the Big Bang theory of the origin of the universe, now accepted by most scientists because of evidence obtained from the study of quasars and of radio waves originating in cosmic space. An example of a statistical hypothesis would be, "One-half of all American men over 18 smoke cigarettes". These hypotheses are based on sampling techniques and statistical analysis which should be carefully examined by the reader. In both types of hypotheses, a conclusion is reached based on partial evidence. The reader must carefully evaluate this evidence and decide if it justifies the conclusion reached by the author.

Reading Materials. A final area in which the teacher can help to promote critical reading is the selection of the reading materials. Since in critical reading, the reader should not just comprehend the author but also react to what he is saying, texts on controversial subjects can be highly motivating. A selection from Konrad Lorenz's book On Aggression in which he argues that aggression is an innate rather than an acquired human trait; an article on euthanasia from the physicians' and the patients' points of view; a reading describing advantages and problems of genetic research and cloning; an extract describing the future of artificial intelligence and its relation to human intelligence are but a few of the dozens of topics which appear in newspapers, magazines and books every day.

A second idea to keep in mind when selecting materials is to try and select several texts related to the same subject but written from different points of view and in different styles. For example, in 1980 Arthur Jensen published a book entitled Bias in Mental Testing, in which he proposed that the difference in average IQ between blacks and whites was caused by the genetic inferiority of black people (obviously a highly controversial issue). Students might read a selection from the book, in combination with an article from Time magazine describing the book ("The Return of Arthur Jensen"; September 24, 1979) and review of the book which appeared in Psychology Today ("Jensen's Last Stand"; February, 1980). The students should compare the three selections with respect to the author's purpose, opinion vs. fact, evidence and line of reasoning, etc.

Another group of readings might be related to the various opinions regarding the origin of man. For example, the students might compare the Leakeys' discoveries[1] with those made by Donald Johanson[2]. Do the fossils discovered by the Leakeys and Johanson belong to the same species? Are they are ancestors? How much of the information given is fact and how much is scientific speculation?

A third basic criteria to consider when selecting readings is to deliberately choose some texts with flaws in reasoning. These are not as hard to find as one might think. Arthur Jensen's writings are full of good examples. For instance, one of his conclusions quoted in the Time article is the following:

> The argument that whites do better than blacks because they have larger vocabularies is wrong. In fact, blacks do slightly better on verbal tests than on non-verbal ones.

Obviously, the evidence put forth is not related to the conclusion reached.

Other common examples of flaws in reasoning can be found in political propaganda which frequently presents arguments in which conclusions are based on insufficient evidence. One case of this would be the Chinese who claim an increase in the standard of living because China's grain production has doubled in the past three decades. The omitted information is that the population has nearly doubled during the same time period and therefore the per capita grain consumption has remained at roughly the same low level. (Butterfield 1982:241).

At the beginning of this article I mentioned the importance of instilling a critical attitude in students. I would go even further than this. In my opinion, the most important thing any teacher can do for his students is to help them learn to read critically, for critical reading is the one basic tool they must possess to be successful students, scientists, professionals, citizens. However, I would be remiss if I did not also mention a probable consequence of teaching critical reading, a consequence some teachers may find difficult to handle.

A critical attitude is not something which is turned on or off at certain times. If a teacher has been successful in his efforts to instill a critical attitude in his students, he must expect that students will apply this attitude to a wide variety of circumstances, including the decisions, statements and opinions of the teacher. In fact, the teacher's success might be measured by the number of times he is challenged by his students. But, as Hudgins says, "the irony of this is not so difficult to live with when one considers that he has helped the students take one sure step down the road to reason".

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THE ROLE OF PREDICTION AND BACKGROUND KNOWLEDGE IN THE ELICITING OF AUTHENTIC READING STRATEGIES

The Problem. A recent experiment carried out at the Universidad de Carabobo with Health Science students aimed to analyze their processing of a reading text. The students were divided into three groups of 17 each; and each group was given the same passage with different instructions. One group was asked to report in its own words the information in the text. The second was asked to translate the passage into Spanish and the third one had to answer some comprehension questions about the content of the text. The passage provided met the following requirements: the topic was well within the students' conceptual ability, very close to their knowledge of the world, also within their cognitive experience. The level of lexical and formal difficulty was perhaps well below that of their average reading materials in English and the style was representative of the way scientific information is presented in text books at an undergraduate level. Quite deliberately, then, an attempt was made to minimize any difficulties other than linguistic ones, which were also kept at a minimum, in order to maximize the opportunities for inferential contributions from the students in terms of active use of their conceptual and cognitive background. Furthermore, they all worked with a bilingual dictionary at hand.

In the analysis of the results, certain tendencies were observed in the students' behavior which suggest the existence of some commonly shared attitudes leading to unsuccessful decoding strategies in reading comprehension. These can be summarized as follows:

1. A general reluctance to become personally involved in the decoding process in the sense of contributing information from their own conceptual and cognitive background.
2. Great difficulty in retrieving information from the target language and expressing it in their native language according to the rules of use and usage of the latter.
3. There was an even greater difficulty in reporting such information in their own words, as shown by the failure of a whole group in doing so as requested by the task.
4. Inferential strategies were seldom applied in the decoding process.
5. Choices in translation were determined almost solely by outward, structural features of the target language with little regard for contextual constraints or appropriateness of meaning.
6. There was a general unawareness of textual unity, for ideas were dealt with in a discrete fashion and cohesive relationships were often ignored or misinterpreted.

The above results will be familiar to most language teachers engaged in the teaching of reading comprehension. Students are said to be illogical, incoherent, immature language users, lacking in formal knowledge of their mother tongue, etc. Although some of these claims may be true of the typical Venezuelan language students, it would be unfair to place all the blame on them.

Mechanical reading is one of the consequences of traditional language-oriented methods where the main purpose of the reading activities is mere drilling or the analysis of lexical and syntactic elements. In fact, it has been claimed that this traditional practice in language teaching is antagonistic to the process of reading (Lautamatti, 1978, p.97). In order to understand this contradiction between language teaching and the teaching of reading, let us consider some theoretical aspects of the psycholinguistics of the reading process.

Psycholinguistics Principles of the Reading Process. Goodman (1973), in his discussion about the psycholinguistic universals of the reading process, points out that any written language has both surface and deep structure, independently of its visual characteristics. Reading is not a precise process, but rather a set of strategies applied by the reader dependent upon graphic, syntactic and semantic cues.

Similar receptive strategies are used in both reading and listening; therefore, what the reader or listener perceives is partly subject to the visual or aural stimulus and partly to his expectations from the constraints imposed on the language and from his knowledge of the world. Reading, then, is not a visual process, but a psycholinguistic one; in Goodman's words, "a psycholinguistic guessing game" (1970) requiring two types of information namely "visual information, coming from the printed page and non-visual information, coming from the brain". (Smith, 1973: p. 6).

In reading, as in listening, it seems that the reader tries to apprehend the deep structure of the message with a minimum of dependence upon perceptual information; this is possible due to a system of beliefs that he has in his own mind regarding the rules of his language and to his general experience of the world. "Receptive language processes" Goodman says, "are cycles of sampling, predicting, testing and confirming" (1973). Thus, when we read about something known to us, reading becomes faster and easier because we can contribute more non-visual information towards its processing. In the opposite case, we would have to resort to the graphic and/or grapho-phonemic cues in order to work out meaning.

The crucial point made so far is that reading for meaning is what reading is about, whereas reading for word identification is not only unnatural but also inefficient and unnecessary. Excessive dependence on visual information, on the other hand, tends to overload our short-term memory. Chomsky (1972) refers to Savin's inference "that sentences are coded in memory in terms of deep structure" which was arrived at from an experiment in which unrelated words were presented before and after a test sentence. In the first case, the unrelated words used part of the short-term memory and therefore the sentence could not be analysed with the remaining memory; in the second case, the sentence, once processed, was stored in terms of deep structure. The same implications apply to the reading process, namely, if meaning is to be retained throughout reading, it has to be done in terms of deep structure; therefore, excessive dependence on word identification would make meaning retention physically impossible, or as Goodman (1973) puts it, "accurate use of all cues available would not only be slow and inefficient but would actually lead the reader away from his primary goal which is comprehension". He also says that our short-term memory "is confounded rather than helped if speech is slowed to 100 words per minute". (op. cit.).

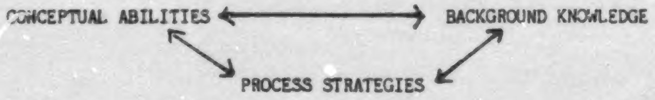
It has been made clear, therefore, why traditional language teaching activities interfere with fluent reading rather than help it. Consequently, a clear distinction should be made between the teaching of a language and the teaching of its communicative use. In the case of reading, the teaching of the lexical and structural elements of a foreign language is usually done in analytical fashion, whereas in the teaching of reading comprehension as such, there should be a shift of focus from the language to the message, which requires the processing of language in units larger than the sentence.

Also it should encourage the active participation of the student in the reading process since, as mentioned above, information from within the reader (background knowledge, conceptual schema etc.) accounts for a considerable amount of the data required to construct meaning from the text. As pointed out by Smith (1978 p.9) "meaning is not something that a reader or listener gets from language, but something that is brought to language".

This last point is corroborated by the schema theory (Carrell and Eisterhold, 1983), which has shown the importance of background knowledge within a phycholinguistic model of reading. This theory holds that comprehension of a text is a result of an interaction between the reader's background knowledge and the text. According to this theory, every linguistic input is tested against existing conceptual schemata (or frames of reference) which must be compatible with the input information before the latter can be interpreted.

Coady (1979) has suggested a model showing the interaction between the ESL reader's conceptual abilities, background knowledge and process strategies (see figure I).

Figure I - Coady's (1979) Model of the ESL Reader



This model is equally applicable in first and second/foreign language reading, although some of the circumstances are different in each case.

In both L_1 and L_2/foreign language reading, conceptual abilities remain constant since they are determined by the intellectual make-up of the individual. They consist of such traits as ability to apprehend ideas, to relate logically different bits of information, to associate new ideas with existing ones, and the like. Background knowledge refers to the reader's expectations generated from his general knowledge of the world and of the language system. Therefore this factor remains partially unchanged in EFL/ESL reading, since the knowledge of the world is the same, but the knowledge of the language will be deficient in a foreign language student. However, Coady suggests that background knowledge helps to compensate for lin-guistic deficiencies.

Process strategies are the cue systems used by the reader to extract meaning from the text; these range from more concrete perceptive cues such as grapheme - phoneme correspondences to more abstract ones such as lexical, syntactic and contextual meaning. Cognitive strategies are also included under this category, e.g., identifying the main idea or apprehending the communicative value of a particular pattern of discourse.

The next section will try to suggest practical ways of applying a more communicative approach in the teaching of reading which take into consideration the above mentioned physholinguistic aspects of reading. Special emphasis will be placed on background knowledge and prediction as a way of leading the students away from mechanical habits in reading.

Implementation of a Communicative Approach to Elicit Authentic Reading Strategies in the EFL/ESL Classroom. If we accept Frank Smith's assertion that it is the reader who brings meaning to the text, then we need to consider what we can do with the readers themselves. Providing background information and previewing content for the reader would seem to be the most obvious strategies for the language teacher, particularly for the less proficient, more word-bound student. Obviously the teacher must also provide material that makes the student able and willing to engage. He/she must activate any background knowledge the students already possess but are often so reluctant to bring up to the level of consciousness. The following suggested activities involve the students in the first-hand experience of authentic reading strategies drawing on background knowledge and prediction. They all aim to provide a genuine purpose for the reading. So that the reading in the classroom to be more natural and valid, more like real-life in which purpose regulates the way reading is done.

Here is a sample activity we have found very useful in proving to lower intermediate students that comprehension is not as language-bound as they think, but more a question of background knowledge and intelligent deduction.

The content - preview takes the form of a warm-up in which wooden spoon dolls with photos attached of Ronald and Nancy Reagan are passed round the class. The students are asked to talk about the people, see if they recognize them and discuss what they already know about the people. After ascertaining that they have guessed the correct identities, the following text is put up on an O.H.P. The text should be in any language unknown to the students - in our example, it is in Slovak.

Ronald Regan je prezidentom spojenych statov. Bol zvoleny v novembri 1980, cim porzail Jimmy Cartra. Ma 74 rokov, a jeho manzelka je Nancy Reagan.

1. Kto je prezidentom spojenych statov?
2. Kedy bol Regan zvoleny?
3. Koho porazil?
4. Kolko ma rokov?
5. Koho ma za' manzelku?

There can then be a useful discussion which reveals the wealth of background knowledge the students already possess. Next, they are asked to interpret the text and answer the questions under it, which nearly all have one-word answers. They find they can do this quite easily. A further discussion about the process involved in this task usually shows that the main strategies which allow them to accomplish this task are prediction on the basis of their previous knowledge about the two personalities and their experience of what is likely to be asked in comprehension questions.

We want to avoid having our students read material "cold". The following activity to activate prediction can be used with most reading passages on a familiar topic.

Take the title, in this case Baldness, and write it on the blackboard, or elicit it if there is a suitably bald gentleman present. Be sure the meaning is known, then arouse the personal interest of the students by asking questions such as "who knows anything at all about baldness? Does any member of your family have this problem? Why do you think it happens? etc." Ask each student to talk to his neighbor for 2 minutes about baldness. To do some "hypothesis-building" ask the student what questions about baldness they think the text might answer or they would like to see answered in the text.

Then have the students read the text to see how many of their questions were actually answered or which of the preliminary hypotheses are either proved or disproved in the text. (This should be a timed, scanning type of reading, and the teacher can encourage the students to read in "chunks" with only three to four eye movements per line, in order to increase their speed towards the ideal of 200 words per minute). They may have predicted most of the content of the passage, or they may have only an outline, but at least their comprehension will have increased, because they are being encouraged to anticipate the content of what they will encounter as well as to focus on the information itself rather than on the language.

This exercise can be adapted to get the students to predict the contents of a book from its index, of a chapter from the title and subtitles or of a paragraph on the basis of its topic sentence.

A problem solving approach which includes a task can activate students' conceptual abilities, and thus increase comprehension.

In this exercise, health science students were divided into groups of three or four and given the following reading passage plus task:

Energy Value of Food. The energy value of any foodstuff may be found by burning it in a bomb calorimeter. A weighted sample of the food material is placed in a deflagrating spoon in an atmosphere of pure oxygen inside an air-tight metal container (the bomb) immersed in water in an insulated tank. The sample is ignited electrically and the heat produced is calculated from the rise in temperature of the surrounding water. From Sloan (1970).

Task: Draw the bomb calorimeter showing all the elements involved in the experiment. It is more authentic to use what we have read for some purpose. In this task the students have to use the passive-voice instructions in the text to draw a setup of the experiment. The text contains an inherent problem which must be resolved in the drawing. The discussion of this problem thus creates communicative conditions for language use and negotiation which activate acquisition.

The fact that in this task the students are asked to show comprehension by non-verbal means allows for a genuine problem-solving process at a conceptual level without the interference of linguistic difficulties. This moves the students away from the tendency towards the mechanical, language-oriented reading mentioned at the beginning of this article. However, significant linguistic misinterpretations do show in the drawings (e.g. the word "insulated" which share meaning with "isolated" in Spanish was wrongly interpreted as the latter by placing the bomb in the middle of a large empty space). At the end, the students discussed with the teacher the errors in their drawings that would hinder the experiment. In this way, the focus is once again on information with a clear purpose in mind.

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DIFFICULTY ANALYSIS AND READING COMPREHENSION: AN EXPERIMENTAL STUDY WITH VENEZUELAN SCIENCE STUDENTS

The extraordinary headway made by the English language in almost every single sphere of knowledge (whether it is social, economical, political, technological or scientific) is undeniable.

In this respect Mackay and Mountford (1978) are of the opinion that English has become the indispensable auxiliary language "par excellence" of science. In other words, the importance of English is directly related to specific uses of the language: to obtain information, to interpret data and theories on the latest achievements in specific areas of specialized knowledge. Consequently, the success professionals may achieve in their respective areas depends on the development of their ability to read the appropriate literature in English. For this reason, in the past ten years or so, courses in English for Specific Purposes (ESP) have been created by non-natives, especially in third world countries, which depend to a large extent on the research carried out in industrialized nations.

An attempt to define ESP at the Universidad de los Andes (ULA). More specifically with reference to Latin American countries, reading (i.e., the understanding of scientific textbooks written in English), is the main objective of the majority of the ESP courses. Students desire to have access to technical information published in English, both at the undergraduate and graduate levels, and the majority of them cannot waste time achieving the four traditional linguistic skills (i.e. understanding, speaking, reading and writing) which would take too long to master. Conscious of this fact, most Venezuelan universities and technological institutes have included ESP courses in their curricula. In the specific case of the ULA, these courses have been given since 1965, and, as was mentioned before, the objective is to teach the students how to retrieve information in as speedy and efficient a manner as possible from the textbooks and/or journals they have to consult.

In spite of all the efforts being made to improve the teaching of these courses are our University, we have not been able to avoid certain problems, such as, poor motivation, poor previous knowledge despite the five years of English taught in high school, very few qualified and correctly trained personnel, overcrowded classrooms. But, the main problem is the lack of research on ESP in the Venezuelan context; such research would provide valid principles and effective methods for the selection of the linguistic phenomena to be included in the course. Moreover, it would enable the teachers to prepare their own teaching materials instead of relying on foreign-made textbooks which are not always suitable for our students' purposes.

Indeed, up to now, the selection of the linguistic materials for this kind of teaching was mainly ruled by intuition, experience and good will and as Qvistgaard (1981:144) mentions "Each country has its own problems and a certain program for a given country may not necessarily be good or convenient for another: the socio-economic situations might be very different, the difficulties differ according to the students' native language, and finally, the English knowledge acquired in primary and secondary school might be far from sufficient" (translated by F. Salager).

According to Hoffman (1981), there are four established approaches to ESP: philosophical reflection, stylistic description, terminological investigation and statistical analysis.

Since it is now commonplace observation (Ulijn, 1975) that most errors in reading are due to conceptual factors (i.e., misinterpretation of single lexical items) rather than to syntactic factors, we decided to initiate our research using the fourth methods mentioned by Hoffman and to apply it to lexical studies. That is how a 5-year research project on Medical English literature (ME) was begun at the ULA, the purpose of which was primarily to determine quantitatively through a statistical analysis the fundamental medical English lexicon. As a result of this research (cf. Salager, 1983, 1984) the ME lexicon was divided into three superimposed strata: Basic (medical) English (BE) also called "natural language" or "general English" by other investigators (Several researchers (Cowan 1974, Anderson 1980, Ulijn 1975, Martin 1976, Inman 1978) have also noted this lexical stratification.)

Purpose and Methodology. Taking as a starting point the results of the research carried out by Osuna, Rojas and Salager on the stratification of the lexicon of scientific English in the fields of biology, geography and medicine, our purpose was to delve deeper in vocabulary teaching and learning and to determine through an analysis of understanding/-difficulty, first, which lexical layer (BE, FE, or SE) most frequently hinders comprehension and second, if morphosyntax is, at times, an obstacle to text understanding, what are the structures which most frequently represent a problem to Spanish-speaking students.

We decided to recur to a difficulty analysis because, according to Ulijn (175), there are two types of criteria for the selection and organization of linguistic items in any ESP (or LSP) reading course. These are: error analysis and difficulty analysis. As Uliyn (19-75:17) so rightly expresses (transl. by F. Salager): "The justification of these analyses is that error and difficulty indicate a deficient verbal performance which is characteristic of the approximate system the reader has of the foreign language".

The results of the present investigation will, hopefully, allow lecturers to draw frequency lists of discrete linguistic items which our students find difficult to understand. The said items should later on be given priority in our teaching materials.

Methodology. A textbook was chosen at random among those recommended by the professors who teach biology, geography and medicine at the ULA. This choice was made on the basis of the results of previous surveys carried out by Osuna, Rojas and Salager. In each field, a text of 2000 continuous words was chosen at random and used to test the reading comprehension of the students who participated in the research. The "text-test" had previously been checked for conceptual suitability to avoid concepts too complex for the students to handle. The students who took part in this investigation were all studying advanced level instrumental English in biology (N=19) and geography (N=32), except the medical students (N=14) who were post-graduate first year residents. We chose the advanced level of the English course because the students' linguistic knowledge increases, hopefully, with length of study. According to Ulijn (1975:18) it is at this level that analyses of understanding/difficulty are useful, since "they contribute to reduce the text to the most useful elements that are still difficult to understand". The texts were handed out to the students who were then asked to underline the worlds and/or groups of words they had difficulty understanding. For the sake of simplicity, throughout this paper, we will refer to these underlined words as "unknown", whether they are really unknown or just difficult to understand

We recorded only those words and/or structures which were underlined three times or more and made one list for the problems related to the lexicon and another for the morphosyntactical difficulties. One final point though should be clarified before summarizing the results of this research: only the roots (and the various affixes) of the unknown words were recorded in our list, because first, we did not want to overload the lists, and second, the previous research carried out on the lexicon of biology, geography and medicine considered the root of the words as the basic unit. Thus, in order to be able to refer back to those works, we needed to take the root as our basic unit of study as well.

Conclusions.

A) Lexicon: as far as lexis is concerned, the global results can be summarized as follows:

1. The most frequently unknown words were derivatives of FE roots. Indeed, out of total 254 unknown roots, the 90 of them (35.4%) belonged to the FE stratum (cf. Table 1).
2. 266 unknown words, 259 (97.3%) were content words, 7 (2.6%) were function words (cf. Table 2).
3. The most frequently unknown words were used as nouns and adjectives (cf. Table 2).
4. A great number of unknown words (66%) were of Latin or Greek origin, i.e., cognate in English and Spanish (words which have a graphic similarity and which are semantically and functionally equivalent in both languages). This demonstrates that the students are not aware of the graphemic correspondences which exist between both languages (e.g., criterion, sphere, response, vacuum, radius, etc); it might also indicate a lack of knowledge of the meaning of words which belong to a specific scientific field, i.e., a lack of conceptual knowledge (e.g., "agarose", "entrophy", "tellurite", "kinetic", etc). In either case no transfer whatsoever takes places.
5. Lastly, a few words of Saxon origin (e.g., wide, low, large, size, etc) were also quite frequently underlined by the students.

B) Morphosyntax: two morphosyntactic aspects appeared to be an obstacle to the students' comprehension, viz. a) affixation and b) compound words.

Affixation.

1. From a total of 266 unknown words, 112 were affixed (Table 3), and of these, the largest percentage was suffixed (e.g.,: -ing, -ed, -ly) (cf. Tables 4-5).
2. The predominant grammatical function among unknown affixed words was the adjectival one.

Compound words (cf. Table 6). Compound words made up of 2 or 3 lexical units were those most frequently underlined by the students. It was also noted that the predominant syntactic pattern corresponded to the noun juxtaposition, e.g., "flickering cluster structure", "proton donor group", "line shading", "background information", "boundary line", Table 7 indicates the compound nominal phrases underlined by the students in each speciality.

Conclusions. Thus, this study proves tha the role of syntax is much less important than the role of vocabulary in the reading comprehension of scientific technical literature written in English.

Moreover, it is especially the content words (which are the key for understanding conceptual information) of the FE lexical stratum which account for the major source of reading difficulty for Spanish-speakers. In that sense, the results of the present work corroborate those obtained by Ulijn (1975) in an experiment carried out with Dutch students who were learning to read scientific prose written in French. Indeed, Ulijn's studies demonstrated that content words (generally speaking) caused more mistakes in interpretation than function ones, although the percentages he indicates are inferior to ours. These FE content words could, therefore, very well represent a certain "universal difficulty lexical core" or nucleus in the understanding of English scientific prose.

In addition, almost 50% of the words underlined by the students were affixed and/or used in the composition of compound nominal phrases. These last two linguistic features of the FE "difficulty lexicon" (mentioned as sources of reading difficulty at the advanced level of ESP course) might indicate either, that these two morphosyntactical register markers (Salager 1984 a.b., 1985) are not introduced at the proper stage of the English course, or that they are not given enough emphasis in the actual teaching situation. It would thus be urgent to make a revision of the topic selection-introduction of our ESP curricula.

Last but not least, an important finding of this research is related to the cognate lexis in both languages (which was also in the present work refered to as 'graphemic correspondences'). Indeed, such a finding might be easily undervaluated, or even overlooked by the teachers who, as linguists, are sensitive to lexical common features (whether these are etymological cognates, borrowings or neologisms). But our experience has shown that students, even at the advanced level of the English course, are "reluctant" to see these equivalences and enquire about the meaning of cognate lexical items much more frequently than expected. Horsella and Sinderman's study (1983) therefore is a welcome and very useful piece of research for Latin American students, and the few basic categories of cognates presented in their paper should, from our point of view, be included as a priority in any scientific English reading course; they will, undoubtedly, act as facilitating factors for the learners' reading comprehension.

Finally, in order to generalize our findings to other fields and to enquire about the existence of a "universal difficulty lexicon", follow up studies should be carried out with larger population in different areas of specialism and in various languages. It would also be worthwhile giving the students to read 2 or 3 texts in the same field if we want to make sure that the results presented here are not text-specific. If the conclusions of these follow-ups corroborate our own, we can then be confident to have found a way to a significant and substantial improvement, not only in the methodology, but also in the contents of ESP programs' this will, in turn, make the teaching-learning more effective.

But, for this goal to be reached as soon as possible, teachers involved in ESP teaching nationwide, should first of all become aware of the tremendous importance of research and unify their efforts, since without adequate investigations it will be impossible to improve the quality and efficiency of teaching our students so urgently need.

TABLE 1

Relative and absolute frequency distribution of UNKNOWN roots according to lexical strata and student's speciality

SPEC \ LS	FE	BE	SE	UNREG	TOTAL
BIOLOGY	24 (9.4)	14 (5.5)	13 (5.1)	19 (7.5)	70 (27.5)
GEOGRAPHY	35 (13.8)	27 (10.6)	10 (3.9)	45 (17.7)	117 (46.0)
MEDICINE	31 (12.2)	16 (6.3)	8 (2.1)	12 (4.7)	67 (23.3)
TOTAL	90 (35.4)	57 (22.4)	31 (12.1)	76 (29.9)	254 (99.8)

LS = Lexical Stratum
SPEC = Student's Speciality
FE = Fundamental English
BE = Basic English
SE = Specialized English

UNREG = Unregistered (Roots which either appear in the Biology, Geography or Medicine lexical [illegible], i.e. roots whose frequency of occurrence was inferior to 0.05% and [illegible] (Cf. Coutet, Rojas and Salager's works)

TABLE 2

ABSOLUTE AND RELATIVE DISTRIBUTION OF UNKNOWN WORDS ACCORDING TO GRAMMATICAL FUNCTION, LEXICAL STRATA AND STUDENT'S SPECIALITY

gf / spec / LS	1 NOUNS				2 ADJECTIVES				3 VERBS				4 ADVERBS				5 FUNCTIONAL WORDS				TOTAL
	Bio.	Geog	Med	Total	Bio.	Geog	Med.	Total	Bio.	Geog	Med	Total	Bio.	Geog	Med.	Total	Bio.	Geog	Med.	Total	
FE	17 6.4%	15 [illegible]	11 [illegible]	43 [illegible]	4 1.5%	12 4.5%	7 2.6%	23 8.6%	3 1.1%	6 1.9%	8 3.4%	17 6.4%	— —	3 1.1%	3 1.1%	6 2.2%	— —	— —	2 0.7%	2 0.7%	91 (34.2%)
BE	6 2.2%	9 3.4%	4 1.5%	19 7.1%	4 1.5%	6 2.2%	8 1.9%	18 6.7%	— —	7 2.6%	6 2.2%	13 4.9%	4 1.5%	6 2.2%	3 1.1%	13 4.9%	— —	— —	— —	— —	60 (22.5%)
SE	6 2.2%	5 1.9%	4 1.5%	15 5.6%	9 3.4%	— —	2 0.7%	11 4.1%	3 1.1%	3 1.1%	2 0.8%	8 3.0%	2 0.7%	1 0.4%	— —	3 1.1%	— —	— —	— —	— —	37 (13.9%)
UNREG.	6 2.2%	19 7.1%	4 1.5%	29 10.9%	7 2.6%	10 3.8%	6 2.2%	23 8.6%	4 1.5%	9 3.4%	2 0.7%	15 5.6%	2 0.7%	4 1.5%	— —	6 2.2%	— —	5 1.9%	— —	5 1.9%	78 (29.3%)
Sub-total	35 13.2%	48 18.0%	23 8.6%		24 9.0%	28 10.5%	20 7.5%		10 3.8%	24 9.0%	19 7.1%		8 3.0%	14 5.3%	6 2.2%		— —	5 1.9%	2 0.7%		
TOTAL	106 (39.8%)				72 (27.1%)				53 (19.9%)				28 (10.5%)				7 (2.6%)				266

gf: grammatical function
ls: lexical stratum
spec.: student's speciality
unreg.: unregistered roots

TABLE 3

RELATIVE AND ABSOLUTE FREQUENCY OF AFFIXED UNKNOWN WORDS ACCORDING TO LEXICAL STRATA AND STUDENTS' SPECIALITY

SPEC \ L.S	FE	%	BE	%	SE	%	UNREG.	%	Total	%
BIOLOGY	8	7.1	9	8.0	6	5.3	12	10.7	35	31.2
GEOGRAPHY	19	17.0	13	11.6	4	3.6	15	13.4	51	45.5
MEDICINE	15	13.4	7	6.2	0	0	4	3.6	26	23.2
TOTAL	42	(37.5)	29	(25.9)	10	(8.9)	31	(27.7)	112	

L.S.: lexical strata
SPEC.: students' speciality
UNREG.: unregistered roots

TABLE 4

MOST FREQUENTLY UNDERLINED SUFFIXES [a]

SUFFIX	GRAMMATICAL FUNCTION	BIOLOGY	GEOGRAPHY	MEDICINE	TOTAL
-ing	vb; adj.,n.	139	175	27	341
-ed	vb; adj.	50	105	46	201
-ly	adv.	54	84	16	153
-ment	n.	11	42	--	53
-ness	n.	31	15	--	46
-er	adj.	14	30	--	44
-ous	adj.	8	35	--	43
-est	adj.	--	34	--	34
-ion	n.	3	17	--	20
-ism	n.	--	16	3	19
-able	adj.	--	15	3	18
-al	adj.	--	14	4	18
-like	adj.	15	--	--	15
-ity	n.	3	12	--	15
-y	adj.	11	--	--	11
-ant	adj.	--	10	--	10
-ably	adv.	--	9	--	9
-ance	n.	--	6	--	6
-ary	adj.	--	5	--	5
-ful	adj.	--	5	--	5

a/ It is to be understood that the suffixes mentioned in this table were not underlined alone, the whole suffixed word was.

TABLE 6

DISTRIBUTION OF UNKNOWN COMPOUND WORDS ACCORDING TO STUDENTS' SPECIALITY AND LENGTH OF COMPOUNDS

spec / LU	BIOLOGY	%	GEOGRAPHY	%	MEDICINE	%	TOTAL	%
2 LU	2	6.1	11	33.3	3	9.1	16	48.5
3 LU	6	18.2	4	12.1	5	15.1	15	45.4
4 LU	---	---	---	---	2	6.1	2	6.1
Total	8	24.3	15	45.4	10	30.3	33	100

LU: lexical unit
2LU: compound word made up of 2 lexical units
3LU: compound word made up of 3 lexical units
4LU: compound word made up of 4 lexical units
spec.: speciality

TABLE 5

MOST FREQUENTLY UNDERLINED PREFIXES [a]

PREFIX	GRAMMATICAL FUNCTION	BIOLOGY	GEOGRAPHY	MEDICINE	TOTAL
un-	adj., vb., n.	15	--	11	26
en-	vb.	--	19	--	19
inter-	adj.	--	12	--	12
[illegible]	n.	--	--	5	5
re-	vb.	--	--	3	3
non-	adj.	3	--	--	3
under-	adj.	--	--	3	3

a/ It is to be understood that the prefixes mentioned in this table were not underlined alone; the whole prefixed word was.

TABLE 7

UNDERLINED COMPOUND WORDS ACCORDING TO STUDENTS' SPECIALITY

COMPOUND WORD	STUDENTS' SPECIALITY	FREQUENCY*
flickering cluster structure	BIOLOGY (N= 19)	15/19
single binding site		9/19
proton donor group		6/19
inert hydrogen solvent		6/19
van der waals contacts		3/19
water structure		3/19
oriented water molecules		3/19
dipole-dipole interaction		3/19
sketch map	GEOGRAPHY (N= 32)	24/32
boundary line		23/32
tufted-grass symbol		21/32
eye-appeal		19/32
bold stripes		19/32
conurbation town		18/32
line shading		16/32
ill-defined area		14/32
dot stipple		13/32
counterpart statistical congestion		13/32
dot map		10/32
short-distance sites		9/32
background detail		7/32
background information		6/32
point symbol		5/32
night sweats	MEDICINE (N= 14)	10/14
ill-defined cluster		9/14
bone marrow		7/14
acid-fast strains		5/14
life-threating opportunistic infections		4/14
liver biopsy		4/14
acid-fast bacili		4/14
ill-formed granulomata		3/14
orcein-positive cells		3/14
low peak plasma concentration		3/14

(*) "Frequency" is to be understood as the number of students who underlined that specific compound word.

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FROM THE EDITOR

The following three articles included footnotes and carefully researched bibliographic references. However, the references have been deleted due to severe space limitations. To obtain a copy of the references, please write directly to:

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WRITING IN EAP: CLIMATE AND PROCESS

While a major goal of EAP courses is to provide students with the tools to write clear expository prose, how to accomplish this has remained a mystery for most EFL teachers. Drawing on the extensive research in the L_1 composing process and teaching techniques, this article outlines a design model for writing components of upper intermediate or advanced EAP courses in an EFL context. The proposed model is dynamic, yet still allows teachers and course designers to focus on individual rhetorical problems, discourse types, or communicative purposes. In addition to accounting for writing as a process activity, the model recognizes the close link between the other skills, especially reading, and the act of composing. An integrated-skills approach provides maximum use of the composition lesson as a generator of communicative interaction and as a source of interlanguage input through conferences, peer editing, and task-based discussion techniques. The model develops activities for those areas of the writing process most amenable to pedagogical intervention, especially invention and revision.

A Writing Climate. Within the U.S. university system and in most teacher training and specialist programs abroad, the writing component is critical to the aims of English for Academic Purposes (EAP). In both contexts students need to acquire writing skills that may well determine the degree of their success or failure in further studies. Yet teaching composition is generally an area where most EAP programs are weakest. Course designers seem to assume that students have previously learned to write the first language, so EAP need only supply lexical and grammatical equivalents that will "translate" writing skills in to English. Unfortunately, such skills are poorly developed in many, if not most cases, even in the native tongue.

Published materials offer little help. Writing textbooks typically organize composition according to discourse types, grammatical points, models for imitation, or even iconic representations of the writing process itself. By analyzing writing into a sequence of product types, such categories misrepresent the nature of the writing activity which is, after all, a creative behavior and not a linguistic product. They suggest that writing is a set of empty forms to be filled in with content. The textbook presentation of writing does not create Perl's "felt sense" (1983: 46-47), the need to write, or the problem to be solved. Writing textbooks also seem to force classes irresistably into lockstep, teacher-centered modes, which suppress the give-and-take of real language use, thus interfering with other goals of language courses.

Perhaps most damaging, however, writing textbooks imply that all writers work nearly the same way, that the steps and products of writing fall into clear-cut categories to be studied, remembered, and practiced. Yet the fact is that composing strategies vary greatly from one writer to another, and individual writers need a range of composing styles on which to draw for differing situations (Selzer 1984). By directing much class time to texts and writing models, textbooks tend to emphasize some order of analytic reading skills at the expense of synthetic writing skills.

Reading skills are certainly very important, but reading deserves information-getting purpose, rather than textual analysis of the reading. In fact, reading experience may be a more important factor in writing improvement than writing practice itself. Students need practice reading target content material, since the written medium is, as

Krashen has termed it, a "second dialect" to master (Krashen 1984, see also Vann 1981). Purposeful reading situations in the target academic area may make a critical contribution to writing skills. Reading is also a source of information input invaluable to the writing climate. It would be a serious mistake to divorce reading and writing components.

Speaking and listening skills should no less be excluded from the writing course. For many students the opportunity to participate in guided oral exploration of topics is essential to stimulate thinking processes and discover alternative points of view. Information oral language is typically a major channel of university learning (Morrison 1978) that precedes and informs subsequent writing activity. The traditional "conversation" type course generally fails to create bona fide academic discussion, mostly because it does not exploit reading and writing experiences. The successful EAP course orchestrates all four skill areas in an atmosphere of serious intellectual inquiry.

In addition to the integration of skills, other principles already familiar to ELT teachers apply to EAP writing components as well. Low affective filter environments (Dulay,et al. 1982: 13—44) promote the development of advanced writing skills. Language use should be purposeful and interactive. Tasks must be tailored to individual levels of cognitive, intellectual, and language development. Learning to write ought to connect with students' goals in language learning and with social reality beyond the walls of the classroom. Written language needs contextualization as much as spoken language. "Writing is a provoked activity, it is located on going social life. The act of writing is not a wholly new start: … it is a continuation" (Widdowson 1981:44). In short, writing requires a suitable climate, where writing is the natural and conventional means for the discovery and expression of ideas.

The first step in planning a writing climate is to select a subject about which to read, talk, think and write. In the interests of gradual approximation (Widdowson 1978:91-3), the subject should contain known as well as novel areas. In the EFL context academic skills courses are often charged with providing an introduction to major themes of the target language culture in preparation for higher level, specialized courses in culture. Since young university students are still formulating their conception of their own culture, culture topics should be defined generally enough to consider them in relation to the host country, Britain, the U.S., and the world at large. Gradual approximation is thus provided for and students become sources of relevant information about the topic. Further, students focus on becoming better world citizens, informed about major world issues such as race, govenment, immigration, etc. They are also usually highly motivated to learn about their own country and to see how it is distinctive. Within such a formate, it is also easier to avoid the tendency to denigrate the native culture in favor of foreign ideas (Alptekin and Alptekin 1984). Perhaps most relevant for the writing component, there is less chance of asking students to write on topics after having no more information than that provided by one or two readings.

While culture as a topic is the obvious choice for content orientation in most foreign teaching contexts, similar directions with broad appeal can be developed in virtually any teaching context. The important point is that there should be content to the course besides target language analysis. Experiements with immersion techniques suggest that language learning is best promoted when the tearget language in and of itself is not the major focus of classroom interaction (Swain 1983). The use/usage distinction (Widdowson 1978:1—21) and the concept of natural language (Terrell 1977) are basic premises of virtually all recent language teaching theory. There is no reason to abandon these insights when it comes to teaching writing.

An additional content area in the writing course is the writing process itself. Students should see how professional writers work (Murray 1968). They should reflect on their own writing processes, observe themselves and others as they produce various kinds of written texts. They should be given the opportunity to expand their repertoire of writing behaviors and have the chance to experiment with writing. They can, for instance, conduct guided interviews and write profiles of how the class approached a particular writing assignment. A taxonomy of writing types, such as that of Jensen and DiTiberio (1984:288—96), can lead to student-created questionnaires and discussion of strengths and weaknesses of individual writing processes. Journals (Spack and Sadow 1983 and Fulwiler 1981 and 1982) can provide structured opportunities to explore writing behavior.

A writing climate breaths life into content by promoting interaction. People interact with each other and new information interacts with previous experience. In the EAP classroom the problem is how to create interaction so that students are talking, thinking, and writing along similar lines. The traditional, teacher-led full class discussions is not very efficient at creating such an environment. Many students simply do not become engaged by such discussion and even those who do are simply repeating the same speaker/audience/purpose formulas of interaction. A richly interactive classroom exploits the various personalities, statuses, abilities, and experiences of participants as they working social constellations of varying sizes. Figure 1 presents a model of the classroom as an information exchange system that offers diverse possibilities for interaction based on new information.

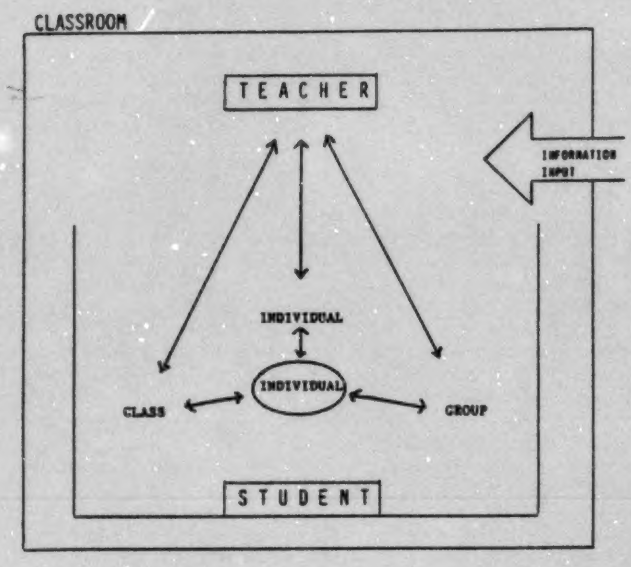
In the model, information enters the classroom, typically through a written text or informal lecture. If institutional resources and the teacher's wiles permit, information may also enter through sources such as video, radio, recordings, and guest speakers. That is, information can be introduced through either the written or the spoken channel and through a variety of media. In language teaching there is the highly exceptional case of texts whose information content is irrelevant, since their main use is to provide the occasion for the teacher to introduce language-descriptive information. Such texts have obviously little potential to promote EAP interaction.

The model further specifies the two main categories of participant: teacher and student. Students, obviously, are several or many while there is usually only one teacher. If information is introduced simultanteously through all participants (e.g., everyone reads the same text or listens to the same tape), there is little potential for interaction. Everyone already has equal access to the information. A possible remedy in this situation is to tap students' previous information (i.e., experience) by asking them to respond to the information contained in the text. The emphasis in this case, however, is not on building a store of new information in the classroom but rather on bringing out old information. If everyone shares the same new information sources, the only other possibility is to encourage the classroom variety of phatic communion wherein students say or write something primarily to "keep things going".

When the teacher gives information to the whole class, there is at least a flow of information, though primarily a one-way flow. As the double arrows in Figure 1 indicate, there are many other potential avenues of interaction possible in a classroom group. Individuals (in pairs), in groups, or to the whole class. Teachers also may interact with students at each of these three degrees of intimacy. If this variety of forms of interaction is to be exploited to the maximum, information cannot be introduced through all participants simultaneously. Instead, classroom procedure must include need-based information getting and giving in a collaborative, academic environment.

It is not especially difficult to plan course units that build in opportunities for interaction based on information exchange. For example, if a hundred pages of reading in eight articles is divided among eight groups in a class of

Figure 1: Potential Classroom Interaction Patterns
Interaction = Information Exchange
(written or spoken channels)



twenty students, each student will have no more than five or six pages of reading. This is a manageable among of authentic text for most EAP students to do overnight. Teachers may exercise the option of tailoring readings to individual students' strengths and interests. After reading the fragmented texts, each group meets to reconstruct the essential information content of its assigned article. A series of questions can guide the group in preparing a short, schematic summary of the article, which is then typed, reproduced, and distributed to the entire class. One or more group members may then introduce the article in two or three minutes by giving an evaluation of the article and referring classmates to the written summary for more detail. (See Figure 2 for sample instructions and guide questions).

Figure 2: Sample instructions for a guided reading/summary group project.

* * * * * RACE IN THE U. S. * * * * *

Joint research project
(finding a topic)
Writing a summary for a specific audience

The class as a whole will get the information (benefit) from eight articles which--in one way or another--are about race in the United States. Since we don't need all the information contained in each article, we will divide up the work in teams so each team can inform us about the interesting, important, or useful information in its article. Each team should divide its essay into an equal number of pages for each member to read. Team members should read only those pages assigned to them at home and try to answer as many of the questions below as possible. If your pages are not from the beginning of the article, you may not understand a lot of things. Don't worry. You need only extract as much of the information required below as possible. After individuals read their parts, you will meet in groups to put the parts together and agree on complete answers to the questions below. This will give you a skeleton summary which you will type, photocopy, distribute to the class, and introduce in two minutes.

SUMMARY INFORMATION:

Where is the article from?
Who is the author?
Is "race" the main topic of the essay?
Who is the author's audience (as he/she understands it)?
Is the article difficult or easy to read?
Did you have any special problems reading it or would other students have problems?
How long is the entire article?
Is there anything that would be good to know BEFORE you read the article?
What is the general topic? (Be more specific than "race")
Is it autobiography? history? description? analysis? a speech?
What is the author's attitude toward the topic? (i.e., How does he feel? What's important? How does he evaluate the information he presents? Does he sound objective? Does he have special insights?)
What are the major points (episodes, events, ideas, etc.) around which the article is constructed?
Describe the most important or interesting of these points.
What about the article might be useful for writing a paper about race?
Does the information lend itself to comparison with Venezuela?

Besides reading and engaging in constructing meaning from a partial text, this activity promotes multple forms of purposeful oral and written practice. Students take notes as they read and, using those notes, interact with a small group to discuss and consolidate the information in the article. During discussion the teacher is free to circulate and interact with small groups more intimately than possible with the full class. This is also an important chance for the teacher to see how well the class is coping with the task and its language demands. The groups construct a written communication for a specific audience, and one or more group members address the whole class while introducing the article. By this point the teacher should have a clearer idea of student comprehension than that provided by either comprehension questions or tests. The activity integrates reading, writing, speaking and listening in a variety of interactive settings.

Such a task can also introduce large quantaties of information, perhaps including conflicting or complementary points of view on a single issue. The quantity and variety of information may then be complex enough to base essay writing assignemnts on it. The results of the activity are conveniently stored in abbreviated, paper form in the summaries where it is available later while students are writing. The summaries can serve as guides for writers to locate articles especially relevant to their own composition topics or to consult with the "experts" who originally read and digested the article. Students make an extra effort to meet deadlines since their commitment is not only to the teacher but classmates as well. Class time is also generally more interesting when students are actively engaged creating course content. The activity fosters a sense of the real value of research itself. The teacher's main concern is with setting up the operation and dealing with problems along the way.

The course can promote information exchange through other activities that similarly exploit differing information sources or students' differing backgrounds, for example, newspaper or periodical hunting, guided, "cold" discussion of a new topic in small groups, journals, interviews inside and outside the classroom, etc. (For a good introduction to discussion techniques, see Ur 1981:2-24). If classroom climate is really to stimulate academic writing, it is essential that students be actively engaged with the topics. It is extremely easy for teachers to talk far beyond the intellectual or linguistic maturity of students and thus lull them into the false belief that listening is learning. This is, of course, especially the case in the teacher-centered classroom.

Small groups are especially effective at varying the forms of classroom interaction and increasing the number of simultaneous interactions. For instance, if each student brings a newspaper article or other short text related to course content areas, they may report to small groups, which then select the most interesting article of the group to be reported to the class as a whole. This is much less tedious than having each student report on each article and does not leave out some students' contributions as randomly selecting reports does. Another version of the same activity is to have students exchange articles, skim for major information, present the other student's skimmed article in groups which select the most interesting to report to the full class; thereby keeping summaries short and to the point.

Another way to create variety of interaction is the well-known student-teacher role switching of student presentations. While the role exchange is, especially at first, refreshing, its major problem is that repeated such presentations become deathly boring. After all, students, especially EFL students, are not brilliant speakers. While the experience of giving such a presentation may be educationally valuable, the experience of listening to them tends to be numbing for both teacher and students. The change of role simply reproduces the teacher-centered classroom, substituting the awkward, groping student for the relatively fluent teacher. If, however, student presentations are required to include discovery techniques, group interaction, and task-based learning activities with but short stretches of presenter monologue, the student-class interactive routine can open space for additional sub-routines of interaction and language practice. This is really not a very difficult step for students to take if they have experience at lower levels of EFL in student-centered classroom, especially if the teacher coaches and approves presentations beforehand.

However true it may be that people learn less when they are passive receptors of information, it is especially true of learning to write. Writers must have active control of ideas of learning to write. Writers must have an active control of ideas if they are to form opinions and find arguements. This control is automatically part of courses that stress writing exclusively from personal experience, but the text-based writing typical of academic work requires explicit provision for extensive processing of new information before students begin to write. Many writers simply cannot write if they do not feel a personal involvement with their topic. Others cannot write if they do not have the opportunity to "talk it out" with someone before and/or during the writing process. No one learns very much about their own writing process and how to exploit it if they spend most of their class time listening to teachers talk about how to write or read a textbook about writing. Writing that is worth doing—and especially academic writing—is more often than not the creation of new ideas rather than the mere communication of pre-existing, clear ideas (Emig 1977).

Since academic writing is not simply a formal operation, and since it depends on an information-generating environment, it is essential to the EAP course that it promote as many different forms of academic interaction as possible. The EAP classroom is an excellent place to promote this interaction and orient it toward the process of writing academic prose. For example, one extremely evasive form of interaction, teacher-student, is especially easy to create in a writing program, as will be seen later. If the course really provides information, a collaborative work relationship among the participants, and vigorous academic interaction, the climate is right.

The Writing Process. Composition theory has come increasingly to emphasize the activities that students engage in as they write as opposed to the previous, nearly exclusive concern with the written products of these activities. That is, most pedagogical theory now feels that teaching should help students develop more effective behaviors while they are writing. When teacher comments are limited to observations about the completed writing assignment, students tend to see their work as a closed case, a last judgement on their skills are writers. The writing course should, instead, work with the student before the case is closed to help strengthen the skills and activities that go into creating written text. Such skills range from exploring a topic and finding ideas to correcting grammatical errors in the final draft.

Originally, the individual's writing process was seen as a three stage operation, consisting of pre-writing, writing, and re-writing (Rohman 1965), which each writer went through each time he or she wrote. Emig's (1971) actual observation of unskilled writers at work suggested that the process was actually more complex than a stage model implies. Different writers engage in different behaviors and the same writer uses different strategies for different writing tasks. Murray's (1968) approach to teaching allowed room for this complexity with his conception of teacher as in-process writing adviser in a highly workable, extensively tested teaching method.

The most recent research into how individuals actually write has confirmed initial impressions that a simple, three stage model is inadequate to account for the actual complexity of behaviors that writers exhibit as they work (see for example Hayes and Flower 1980). Before beginning a piece of writing, the writer may well perform writing activities such as jotting down notes, making lists, outlines, diagrams, or start right in with a draft or part of a draft. While actually writing, writers typically return to re-plan, re-arrange, or even scrap the work in process. Perl points out that any writing involves continual pre-writing types of activities and revision types as writers continually plan, rescan the text so far, and finally move forward (1983). Re-writing, originally seen as a final step, may actually occur throughout the process, as writers reject and revise their first thoughts, correct sentence structure before going on the next paragraph, etc. In some writing situations, such as dictating a routine business letter or to writing up the results of a short group activity, everything seems to happen at once. Real writing behavior is a messy business that is highly individualized, facts that an EAP curriculum must acknowledge.

Despite the complexity of the individual writer's experience with creating text, a three stage model still offers advantages for course design, especially where some or all of the course material is new information for students, as it typically is in the academic setting. In this course design version of the three stage process, the pre-writing section means introducing the content area to students, helping them absorb and consolidate new information and evaluate it in light of previous experience. This pre-writing climate includes gathering information, forming options, discussing with others, making notes, "rehearsing" the writing process (Murray 1980:4-5), etc. Writing itself is an important part of this section since journal entries, summaries of group activity, freewriting, and so forth all provide useful starting points when students confront extensive writing assignments later. Writing itself in such a curriculum is what the students generally does alone without immediate teacher intervention, although activities may be geared to interrupting this process and considering work so far. The writing stage of this curriculum, of course, refers to producing the essay of several pages rather than the very different kinds of writing which are also part of the course in general. The re-writing sections of the course include the process of critical reading, re-visioning and re-casting the text, as well as final editing, correcting, and proofreading. It is important that teachers not confuse the three stages of organizing teaching units with the variety and complexity of individual processes that students go through in the act of writing. A straightjacket view of the writing process may do more to discourse student writers than to help.

Most of the pre-writing part of units has already been provided for once a writing climate exists in the classroom. Students gather information (from reading, their own experience, their fellow students), explore topics (speaking and in writing), connect new information with known information, and generate writing which may be exploited later to start extensive writing. Group activities can produce short reports, records, summaries, and descriptions of various aspects of the topic. If student presentations are done well, they can also produce a great deal of talking, writing, and thinking about the topics. Teachers may also want to use discovery techniques (Odell 1980), freewriting (Elbow 1975:2-11), brainstorming activities, diagraming, outlining, journal entries (Fulwiler 1981 and 1982), etc. While such activities may seem to require excessive amounts of classroom time, alternative uses of class time are likely to provide slipshod, night-before writing, which encourages poor work habits and promulgates the notion that writing is a matter of one shot inspiration rather than the result of craftsmanlike work. If the interactive potential of the classroom is fully exploited, this time will be well spent on other language skills that EAP students need to practice in any event. Perhaps worst of all, many students who tend to become "blocked" when they approach writing assignments will find little help if their foundation in the subject is underdeveloped or the writing assignment is poorly designed. A major objective of process-oriented composition is to teach that everyone can write, that writing does not depend on momentary inspiration but on developing problem solving skills that can be practiced under guidance and improved.

Imitating models of good writing has been a traditional part of the pre-writing section of composition courses. The theory is that after reading an example of "extensive description" or "analysis and synthesis", discussing the model's elegances, and perhaps outlining its structure, students will be able to "go and do likewise". While study of such models may be useful for students of language in and of itself (linguists and literature students), the models have little relationship to the unique set of demands and constraints posed by the need to create an original text as the writer works out the form and content. There is no neat catalogue of forms that correspond to content; writing is not such a simple activity as matching formulas to assignments. This formalistic approach denies the obvious fact that each subject that is worth writing about generates its own problems and requires its own solutions. While asking students to write about a specific subject or to write following academic conventions makes sense, it makes no sense to ask students to fill in an assigned form with content. Form and content are not so easily pried apart (Taylor 1981). Real writers do not perform such meaningless tasks, that includes teachers when they write.

Escholz (1980), however, proposes a novel approach to the use of models. In his classes, students are given model prose texts as they run across their own problems in the process of writing. In this case, the model is no longer an empty form to be filled in, but a potential solution to a real problem. Flanigan (1979) suggests some other examples of innovative ways to use prose models in teaching composition, but finally concludes that what teachers need to model is not the product but the behavior that successful writers engage in to produce texts. Furthermore, if models are to be used in class, it makes sense to use student writing, with its strengths and weaknesses, as models that can teach critical reading (revision) skills and about which suggestions for change can be made.

Once students have had the opportunity to explore a content area, they will likely be on their way to a sense of their own special interests and subjects. Though the teacher of syllabus sets the writing topic, the assignment should be broad enough to allow students to pursue their developing interests. Teachers "may not realize that much, if not most, of the poor writing they see in school is the product of the assignments they give" (Murray 1980:14). Asking students to write about slavery in the States or the causes of the Civil War, after reading only a single, short essay, guarantees a superficial, lifeless product. The students, asked to engage in a meaningless, academic exercise, cannot hope to bring their full intellectual and writing abilities into play. Poor, restricting essay topics abort the writing process before it ever begins.

Furthermore, a major part of learning to write is learning to appropriate and define the topic in one's own terms. The craftiest talented students have learned well the trick of bending essay topics toward their own writing interests and abilities. Unless assignments are general enought to give students the responsibility (and freedom) to find their own subjects, they will not go much beyond a fill-in-the-blank kind of writing. They are also less likely to come to grips with the topic for themselves. Delimiting a subject can be painful work, especially for some students, and teachers should be supportive and encouraging. Yet finding something to write about is essential to writing as a learning process, and skilled writers are usually very good at finding their own subjects. In addition, writing to a very narrowly defined essay question produces a similarity from paper to paper which makes it boring for the teacher to read and fails to stimulate students to read each others' work.

After setting the assignment and perhaps helping students select their subjects, the actual act of writing is difficult to observe without looking over the writer's shoulder. Yet even this process can be interrupted and discussed through conference, or one-to-one, techniques (Carnicelli 1980 and McGuire Simmons 1984). Teacher-student conferences make use of the teacher's years of training as a reader who can help students discuss problems as they arise and anticipate problems while they are actually working on a piece of writing. At the same time, conferences are more effective than written comments, since the student is present to give his point of view or explain his intention. Talking to the teacher gives students a greater sense of responsibility and confidence that their writing is something important. Problems of content, point of view, organization, style, and mechanics are dealt with one at a time as they become relevant, rather than all at once after the student has finished writing. A series of conferences also avoids the typical barrage of red marks that corrected final drafts present to students, making them feel that they have done it all wrong. In EAP, conferences also help students avoid excessive, pre-mature editing (Perl 1979:333-34) that may make extensive writing in the target language appear impossible. Conferencing also provides perhaps a unique opportunity for frequent student-teacher interaction, which helps keep the teacher in contact with students and make encourage EAP students to make use of their professors' office hours when they enter the mainstream university environment.

When conferences are used, they treat the areas of revision, editing, and correction. When they are not used, group techniques can help students in these areas. Murray argues that "rewriting almost always is the most exciting, satisifying, and significant part of the writing process" (1978:86). If students are to learn strategies for re-visioning their writing, the strategies must be taught. Huff (1983) and Flanigan and Menendez (1980) recommend specific heuristic procedures for students to follow in groups that read, critique, and recommend changes in successive drafts of each others' work. Guided by instruction sheets and teacher modeling, students learn to develop the same skills that good editors use to guide writing. In the process they learn to read their own work with a more objective eye, a skill which should serve them after they have finished their writing course. Also, group revision techniques expose students to academic prose in each others' creations. They also promote spoken and written interaction.

EFL and ESL students, like basic writing students (Shaughnessy 1977), need specific help with problems of language error. Guide sheets can be prepared for group work or individual review of writing to locate typical problems such as the third person singular -s of present tense verbs, plural markers, preposition problems, spelling, etc. It is far more effective to teach students error self-correction strategies than to correct every error in a paper. If it hasn't been given prior to the EAP course, systematic instruction in the use of English-English dictionairies, grammar reference books, and textbooks should be included in the course design. Students should be signalled to look up the answer when something looks wrong or they're not sure how to do it. With an arsenal of error correction strategies, EAP students will be better prepared to be judged alongside native speakers after their training is completed.

Last but not least, students should read each others' writing. If this takes entire class periods, it is time well spent. They will be seeing examples of student academic prose, comparing their own product with their fellows', and gaining insight into the writing process. Reading student production is, after all, also practice in reading. Most important, giving students the opportunity to read each others' work gives some purpose and audience to the writing process and affords a major source of feedback and praise for students who have worked hard and are proud of their work. Students who are poorly motivated to work on something for teacher's eyes only, are more industrious when they know that their writing will be thus "published". Finally, for the teacher, readability is a sort of final evaluation of the unit. If the papers are not worth reading, something has gone dreadfully wrong, since the purpose of writing is reading.

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SYNTAX AND SEMANTICS OF COMPOUND NOMINAL PHRASES IN MEDICAL ENGLISH LITERATURE: A COMPARATIVE STUDY WITH SPANISH[1]**

INTRODUCTION. Prenominal modification (also called lexical phrases, nominal phrases, nominal compounds or complex nominals)[2] appears to be a heavily exploited target structure in English, the pragmatic motivation of which is illustrated by the following quotations: "By the formation of complex nominals, a head noun and its underlying proposition can be reduced to just two words... Complex nominal formation is a device of tremendous utility in English, if only for expanding the among of information we can store in short term memory". (Levi 1978:58).

"Nominalizations are a means of packing a sentence into a bundle that fits into other sentences". (Vendler 1967:25). Downing (1975:45) correctly points out that it is this feature of conciseness that explains the heavy use of compound forms in newspaper headlines: "Compounds are ideally suited for use in situations where there is a premium on brevity, yet no appropriate unitary system exists. Thus, newspaper headlines are filled with compounds... Compounding serves as a backdoor into the lexicon". In fact, many CNPs exist well beyond their first coinage and they acquire more and more the characteristics of a unitary lexical item. The same author (1975:11) also asserts that "because the compounding process is extremely productive and because compounds are considerably more transparent semantically than novel monomorphemes, compounds are ideally suited to serve as ad hoc names".

As several researches have pointed out (Bartolic 1978; Levi 1978; Mackay, Mountford 1978; Cohen 1979; Ulijn 1979, 1980; Nattinger 1980; Salager 1980, 1983; Hoffmann 1981; Williams 1982; Baltra 1983; Carver 1983; Latorre, Maldonado and Guzman 1983) this tendency towards conciseness of expression (whether oral or written), i.e., the principle of linguistic economy, makes itself even more apparent in English scientific literature. Indeed, when scientists find themselves in a situation in which they want to refer to an entity which has no name of sufficient specificity for their classificatory or communicative purposes, they recur to compound nominal phrases. As Kocourek (1979:143) mentions: "A good many subject specialists feel that because there exists a specific thing or concept, there has to exist a name for it, no matter how cumbersome." Indeed, it has been found (Salager:1983) that CNPs are significantly more numerous in scientific prose than in general English, and that the more specialized the text, the longer and more numerous the CNPs are. The information thus conveyed is more succinct, direct, condensed, has a greater impact upon the reader (Bartolic 1978:260) being usually achieved, as Tinkham (1981:148) points out, by the juxtaposition of several sub-technical terms. CNPs are then a very successful, if not the most successful, means of compressing syntactic and semantic information into a highly compact form to the point, as Trimble mentions (1977:58) of confusing the native speaker of English. Besides, very often the CNPs are used as acronyms, which are a clear indication of their authors' intent to consider the original phrase as lexicalized in spite of its syntactic ambiguity. It is not the purpose of the present paper to carry out a formal and functional analysis of the syntax and semantics of CNPs in medical English literature and to determine the most productive underlying structures which make explicit the range of possible semantic structures that can be correctly associated with a given surface CNP. The readers will then be able to construct a relatively prompt, appropriate, complete and accurate interpretation of each intended concept by reducing the multiple ambiguity and inherent vaugeness of surface forms of CNPs. Along the same lines, for pedagogical purposes, we will carry out a short contrastive analysis with Spanish. Indeed, our own experience as well as others' (Widdowson 1979, Mackay 1981, Parks 1982, Titford 1983) has proved that students, at least in the beginning stages of their linguistic training, recur to an almost word by word translation of CNPs because they want to make sure that they have assimililated the information and that their ideas are clear. As Mackay (1981:141) explains: "Despite the climate of disapproval surrounding the use of translation as a learning strategy, we felt that this kind of exercise was justified. After all, although the students had to read in English, the information gained had to be employed in Spanish and integrated into their existing knowledge in Spanish". Widdowson (179:101) argues "that translation can be a very useful pedagogic devise and, indeed, in some circumstances, notably those where a foreign language is being learned for specific purposes, translation of a kind may provide the most effective means of learning".

Corpus and Methodology. To this end, a linguistic corpus of approximately 16,000 words (taken from 16 different medical texts likely to be consulted by foreign medical graduates) has been consulted and all the CNPs recorded and analyzed. Treated as CNPs were those items made up of at least two individual lexical constitutents seperated one from the other by a space or dash, e.g., blood sample (N_1 N_2), hypersensitivity skin test (N_1 N_2 N_3) etc. According to the abovementioned definition, the following structures were excluded from the present study:

-lexical CNPs: undergo, overcome, bathroom;
-adj. + N: cardiac arrest, renal failure (but "heart attack" and "kidney failure" have been recorded).
-active participle + N^2: fibrillating heart (but "heart fibrillation" has been counted as CNP)
-past participile + N^2: performed test
-adv. + adj. + N^1: scarcely breathing patient
-possessive case: patients' management.
-proper nouns that resemble CNPs in form but whose first element is used primarily to name a single, definite referent: Likoff Cardiovascular Institute.

Table 1: PREDICATE DELETION IN COMPOUND NOMINAL PHRASES - GLOBAL RESULTS

English underlying structure (or predicate deletion)	Spanish semantic structure	Proto-indo europ case	total	%
of: reference possession origin apposition manner	de	genitive	195	42.7
in (time, place)	en, durante	locative	112	24.7
in + of/of + in	en + de, de + en	loc + gen	35	7.7
wh - verb (-ing)	relative clause que + verb		26	5.7
with (which uses)	con, mediante	instrumental	25	5.5
wh - be (- ed) by	past participle or adj. + por		22	4.9
caused by	debido a por	ablative	19	4.2
to	a, al, a la	dative	12	2.6
coordinate structure or coordinate multiple head phrases (and, or)	de o y		8	1.9
total			452	99 3

Global Results. Four hundred and fifty two (452) CNPs have been recorded in our medical English corpus. As Table 1 shows, the larger part of the semantic relationships that may be associated grammatically with the surface structures of CNPs can be expressed by a small set of specific predicates that are, in Levi's terms "recoverably deletable in the process of CNP formation". This set is made up of 8 predicates: 5 of the prepositional type (of, in, in+of, with, to), and 3 of the verbal type ("wh-be" with an underlying gerund; "wh-be" with an underlying past participle and "caused by"). A few examples of coordinate structures or coordinate multiple head phrases (involving the use of both prepositions "and" or "or") have also been recorded.

Table 1 also indicates the Proto-Indo European case system to which each deleted predicate most of the time corresponds because as Levi (1978:165) mentions: "The members of the RDP set are strikingly parallel to the reconstructed case system of Proto-indo European. These correspondences, albeit not perfect, certainly lend weight to the hypothesis that the RDPs form a universally distinctive set, and suggest a promising line of investigation for subsequent studies of the university of the RDP set". We will now present, analyze and illustrate each semantic category by order of decreasing frequency according to the results obtained from the analysis of our medical English corpus.

Our of a total of 452 CNPs, the most frequently deleted predicate is the linking preposition "of" (193 CNPs or 42.7%); then comes "in" and "of" (35 cases of 7.7%): wh-V (-ing form) (26 CNPs or 5.7%); "with" (25 cases of 5.5%); wh-be(-ed) (22 instances or 4.9%); caused by (19 CNPs or 4.2%); to (12 cases or 2.6%); and finally coordinate structures (8 CNPs: 1.8%).

Partial Result

1. OF The linking preposition "of" can express a number of different covert relations between head and modifier, but all of them correspond to the Spanish de as the following examples illustrate. The simplest structure will then be: $N_1 N_2 \longrightarrow N_2$ of $N_1 \longrightarrow N_2$ de N_1 [3]

1.1 Possession, property (genitive case). The underlying predicate is the verb to have (wh-has/have) and the prenominal modifier is the subject of the relative clause, i.e., of the underlying predicate: N_1N_2: paper speed, wall thickness, urine osmolality N_2 which N_1 has: speed which the paper has, the thickness which the wall has, the osmolality which the urine has. N_2 de N_1: velocidad del papel, espesor de la pared (abdominal, intestinal), osmolaridad de la orina (orinaria).

It is worthwhile mentioning that cases of morphological adjectivalization (where the prenominal modifier has a corresponding nominal nonpredicating adjective which the lexicon specifies as its exact synonymous counterpart) have been recorded. Indeed, it was not rare to find in the same text the following expressions which are parallel in syntax and semantics: "cardiac failure" and "heart failure"; "renal involvement" and "kidney involvement", "gastric outlet" and "stomach outlet". As can be seen, the nominal adjectives are of Latin or Greek origin, having acquired a more prestigious and learned association, and the nouns are of saxon or germanic origin.

1.2 Origin (from: ablative case). The predicate "from" is used to derive those CNPs whose prenominal modifer denotes the source or the origin of the head noun. N_1N_2: laboratory finding, biopsy finding, protein derivative. $_2$ from $_1$: finding from the laboratory, finding from the biopsy, derivative from the protein. N_2 de N_1: hallazgo de laboratorio, hallazgo de la biopsia, derivado de proteina.

1.3 Reference (about: ablative case). The semantic relation represented by "about" may be expressed as "concerned with", "dealing with", "pertaining to", "on" etc. N_1N_2: case report, gastroenterology article, catheterization data. N_2 about N_1: report about a case, article about gastroenterology, data about the catheterization. N_2 de N_1: informe de caso, articulo de gastroenterologia, Atos de caterterizacion.

1.4 Content of something (made of, which contains). The modifier denotes the material of which the head noun is composed. N_1 N_2: barium meal, coca solution, oxygen molecule. N_2 made of N_1: meal made of barium, solution made of coca, molecule made of oxygen. N_2 de N_1: solucion de coca, molécula de oxigeno, ingestion de suspension acuosa de bario.

1.5 Apposition, nature, quality or condition (wh-be deletion). This predicate underlines two semantically distinguishable classes. One semantic subtype identifies a subset of the set denoted by the head noun, e.g., N_1 N_2: type 8 antiserum, type A-III single ventricle, control subject, 4 week-period (and all the CNPs compounded with numerals which involve a numerical value, i.e., a measure predicate). N_2 which/who is N_1: antiserum which is of the type 8, single ventricle which is of the type A-III, the subject who is control, period which is of 4 week (which lasts 4 weeks). N_2 de N_1: antisuero de tipo 8, ventriculo unico de tipo A-III, individuo control, periodo de 4 semanas.

The other semantic subtype is composed of these CNPs used in a methaphorical sense whose interpretation includes a relation of similarity where the predicate "to be like" is present in the semantic structure. Some are partial metaphors, e.g.: N_1 N_2: C-curve, horse shoe nuclei, seizure activity, Y body. N_2 which is like N_1: curve which is like a C., nuclei which are like a horse shoe, activity which is similar to a seizure, body which is like a Y. N_2 parecido a N_1: curva en forma de C., nucleos parecidos a una herradura, activdad parecida a un ataque, cuerpo en forma de Y. Other are full methaphors which Georges Gougenheim (1968:139) names "ecartement semantique". Their meaning is not easily or completely deductible from the meaning of the constitutent words, e.g.; N_1 N_2: tunnel vision, shot mechanism. N_2 which is like N_1: vision which is like a tunnel, mechanism which is like a shot. N_2 parecido a N_1: vision como se ve en un tunel, mecanismo de disparo (=parecido a).

According to Kocourek (1979:140) this kind of CNPs is highly unpredictible". This term unpredictibility concerns specialized phrases considered paradigmatically out of context, judged by a specialist acquainted with the particular field, its conceptual system and the meaning of constituent words but unacquainted with any special meaning of the phrase". This explains why those CNPs most of the time become lexicalized expressions.

1.6 Purpose, use (ablative case). The predicative "for" indicates that a relationship of intent or purpose exists between the object named by its two underlying arguments. N_1N_2: entrance requirement, muscle stimulant. N_2 for N_1: requirement for entrance, stimulant for the muscle. N_2 de N_1: requisito para entrar, estimulane del musculo (muscular).

2. IN (locative case). One hundred and twleve CNPs (112 or 24.7%) whose underlying structure involves the preposition "in" have been recorded, it represents a general locative predicate which indicates either that "N_2 is located in N_1" or that "N_2 occurred during N_1", i.e., thel ocation may be either in place or in time.

2.1 Location in place. The prenominal modifier indicates the place where the head noun is encountered. This underlying predicate may be lexicalized in English by a variety of surface prepositions (in, on at), the selection of which is determined by both semantic and lexical constraints. The Spanish underlying semantic structure would be en. N_1N_2: chest pain, lung water, T-wave abnormalities, adult toxicity, ECG changes, adult risk factor. N_2 in N_1: pain in the chest, water found in the lung, abnormalities found in the T-wave, toxicity which occurs in adults, changes found in the ECG, risk factor which occurs in adults. N_2 en N_1: dolor en el pecho (toracico), agua del (en el) pulmon, anormalidades en la onda T (de la onda T), toxicidad en el adulto (del adulto), cambios en el ECG (del ECG), factor de riesgo en el adulto.

2.2 Location in time. In this case, the underlying predicate may be lexicalized in English by the surface preposition "during", or "at" (Spanish durante), e.g., N_1N_2: birth asphyxia, exercise echocardiogram. N_2 during/at N_1: asphxia at birth, echocardiogram during exercise. N_2 durante N_1: asfixia durante el alumbramiento, ecocardiagrama durante el ejercicio.

3. OF + IN or IN + OR. In third position comes the multifunctional CNPs made of the two linking prepositions: "of + in" or "in+of" (35 cases: 77%). The underlying structure of the resulting CNPs is: N_3 of N_2 in N_1 or N_3 of N_1 in N_2 e.g., urine sodium concentration, serum salycilate level, plasma pheonbarbital concentration (encountered in the text as "concentration of phenobarbital in plasma), plasma protein osmotic pressure (expanded in the text as"osmotic pressure of protein in plasma").

The corresonding Spanish structure is then N_3 de N_2 en N_1 or N_3 de N_1 en N_2 concentracion de sodio en la orina, nivel de sal en el suero, concentracion de fenobarbital en el plasma, presion osmotica de proteina en el plasma.

In the abstract of one of our sample articles, the following CNP of a more complex "of + in" structure was recorded: Urine/plasma urea nitrogen ratio. This extreme linguistic contraction is due to space limitation (abstracts are usually no longer than two hundred words); in fact, the above mentioned CNP is expanded later in the text into: urine-to-plasma-ratio of creatinine which would be translated into Spanish as "proporcion entre el nitrogeno urico de la orina y el del plasma".

4. WH - verb deletion with an -ing form (or active participle). This category of CNPs accounts for 5.7% (26 cases) of the total recorded. The corresponding Spanish semantic structure is a relative clause; we thus have the following syntactical structure in which the prenominal modifer is the direct object of the V -ing form. $N_1(N_2)$ - ing N_3: drug metabolizing enzyme, arrythmias producing concentration, life threatening situation, permeability increasing effect, Ca^{++} channel blocking agent. N_2 who/which/verb N_1: enzyme which metabolizes the drug, concentration which produces arrythmias, situation which threatens life, effect which increases permeability, agent which blocks the Ca^{++} channel. N_2 que + verb + n_1: enzima que metaboliza la droga, concentracion que produce aritmias situacion que amenaza la vida, efecto que incrementa la permeabilidad, agente que bloquea el canal de calcio.

5. With deletion (25 cases: 5.5%). The linking preposition "with" that may occur in paraphrases of CNPs bears an instrumental meaning; e.g., which uses, by means of (Spanish: con, mediante, por medio de). We thus have the following structure in which the prenominal modifier expresses the means by which the head noun is performed. N_1N_2: propanolol therapy, M-mode echocardiography, patch closure, ketamine anesthesia, treadmill stress test, catheterization studies. N_2 with: therapy with propanolol, echocardiography which uses N_1 uses the M-mode, closure with a patch, anaesthesia by means of N_1 with ketamine, text by means of a treadmill stress, studies by means of catheterization. N_2 con N_1: terapia con propanolol, ecocardiografia que usa el modo M, cierre por medio de un parche, anestesia con ketamina, prueba de esfuerzo mediante la cinta sin fin, estudios por medio de cateterismo.

6. WH - BE + ed deletion (22 CNPs: 4.9%). These CNPs are based on passive participles and correspond to the same grammatical form in Spanish. We thus have the following structure in which the prenominal modifier is the agent of the underlying predicate: N_1 -ed N_2: virus induced necrosis, iron - induced anaemia, computer assisted diagnosis. N_2 which is (V) by N_1: necrosis which is induced by a virus, anaemia which is induced by iron, diagnosis which is assisted by a computer. N_2 past participle (or adj.) +por N_1: necrosis producida por virus, anemia producida por falta de hierro, diagnostic ayudado por computadora.

7. Caused by (19 cases: 4.2%). The semantic interpretation of the CNPs in which the predicate "caused by" has been deleted is obtained through an intermediate stage which contains a compound adject of the form "N-caused" as the following examples illustrate; the prenominal modifier is the agent of the underlying predicate. The Spanish semantic structure is debido a, por, con. N_1N_2: xylocaine block, drug depression, firegun wound, lidocaine convulsion, irradiation pericarditis, M-avium intracellular infection (also found in the text as "infection with M-avium intracellular"). N_2 due to/caused by N_1: block due to xylocaine, depression due to the drug, wound caused by a firegun, convulsion caused by lidocaine, pericarditis due to irradiation, infection caused by M-avium intracellular. N_2 por N_1: bloqueo causado por xilocaina, depresion debida a la droga, herida por arma de fuego, confulsion causada por lidocaina, pericarditis debida a la irradiacion, infeccion debida a M-avium intracellulare.

8. TO deletion (dative). A few CNPs in which the deleted predicate element was the preposition "to" have been recorded (12 CNPs, 2.6%). It implies a dative semantic interpretation, whose Spanish counterpart is most of the time a.

N_1N_2: exercise intolerance, drug addiction, protein binding, drug allergy. N_2 to N^1: intolerance to the exercise, addiction to a drug, binding to a protein, allergy to a drug. N_2 a N_1: intolerancia al ejercicio, adicion a la droga, union a proteina, alergia a la droga.

9. Coordinate structures or coordinate multiple head phrases. Eight instances of this elliptical type have been recorded. In such cases, the two constituent parts of the CNPs are separated from each other by the prepositions "and" and "or". The following structure is thus observed: N_1 and/or N_2N_3———N_3 of N_2 and of N_1?, e.g., blood and urine sample, patient age and sex, joint and wrist radiographs. The underlying Spanish structure thus is: N_3 de N_2 y de N_1: muestra de orina y de sangre, sexo y edad del paciente, radiograflas de la muneca y de las articulacions.

These CNPs are generally difficult to understand because the students might be at a loss to decide whether both prenominal modifiers refer to the head noun, e.g., [all images were checked for] background and detector nonuniformity. Does the head noun refer to both "background" and "detector" or just to "detector"? Contextual clues and the students conceptual knowledge are the only way to make a decision when the writer does not use the language correctly.

Conclusion. The emphasis in this paper has been on identifying and describing (linguistically and functionally) the most productive grammatical aspects of CNPs used in English medical literature. The above-mentioned set of deletable predicates (summarized in Table 2) tends to prove that CNPs are not so idiosyncratic as is generally thought. This restricted and identifiable set which accounts for the semantic relations that underlie medical English CNPs, will now permit the instructor to explain this complex and heavily exploited structure in a more systematic (almost mathematical) fashion by classifying the CNPs according to their underlying syntactic structure and by introducing the various syntactic options used by order of decreasing frequency (along with their Spanish translation) since the underlying constituent which has been deleted is systematically recoverable. Although this classification does not preclude in any way the possiblity of misunderstanding the CNPs, we believe that is considerably reduces the inherent ambiguities and

Table 2 - RECAPITULATORY TABLE

Deleted Surface lexical item	English underlying structure	Spanish semantic structure	Example	Spanish Translation
OF possession property	N_2 of N_1 N_2 which N_1 has	N_2 de N_1	wall thickness	espesor de la pared
origin	N_2 from N_1	N_2 de N_1	laboratory test	prueba de laboratorio
reference	N_2 made of N_1	N_2 de N_1	catheterization data	datos de cateterizacion
content	N_2 about N_1	N_2 de N_1	coca solution	solucion de coca
opposition	N_2 which is N_1 N_2 like N_1	N_2 parecido a N_1	C curve	curva parecida a una C
purpose use	N_2 for N_1	N_2 de N_1	muscle stimulant	estimulante muscular
IN location in place	N_2 at / in / on N_1	N_2 en N_1	chest pain	dolor toracico
location in time	N_2 during N_1	N_2 duranta N_1	exercise echocardiogram	ecoqardiograma (tomoado) durante el ejercico
IN + OF	N_3 of N_2 in N_1	N_3 de N_2 en N_1	serum salycilate level	nivel de sal en el suero
OF + IN	N_3 of N_1 in N_2	N_3 de N_1 en N_2	phenobarbital plasma concentration	concentracion de fenobarbital en el plasma
IN - verb (-ing)	N_2 which verb N_1	N_2 + que + verbo +N_1	drug metabolizing enzyme	enzima que metaboliza la droga
WITH	N_2 with N_1 (which uses)	N_2 con / por medio N_1	propanolol therapy	terapia con propanolol
WH - BE (-ed) BY	N_2 + which is + + V-ed + by + N_1	N_2 + adjective or past participle + por + N_1	Virus - induced necrosis	necrosis producida por virus
caused by	N_2 + caused by + N_1	N_2 con, por / debido a N_1	lidocaine convulsion	convulsion debido a Lidocaina
TO	N_2 to N_1	N_2 a N_1	drug allergy	alergia a la droga
COORDINATE STRUCTURES or COORDINATE MULTIPLE HEAD PHRASES (AND, OR)	N_3 of N_2 and of N_1 N_3 of N_2 or of N_1	N_3 de N_2 y lo de N_1	patient age/or and sex	edad y sexo del patiente

difficulties they present for foreign readers. Obviously, there will always be a small number of NN collocations for which it will be difficult to decide which predicate has been deleted in their formation, i.e., to decide to which semantic category they belong, because one and the same surface structure representations may have various underlying strucutres. However, those "refactory" CNPs are reduced to a minimum in scientific - technical writing because the readers, whatever their native languuge, will make the same cognitive connections when associating a given NN form with a particular concept. Indeed, as Widdowson (1979:110) explains "the learning of science involves the acquiring of a superimposed knowledge of certain universal concepts and methods which are general to science and technology"; thus, it is most likely that non-English speaking scientists will attribute one and the same semantic underlying structure to a given CNP. However, there exists a difficulty inherent to CNP forms which has only been briefly touched upon in the present paper and which should not be overlooked in the actual teaching situation: the hierarchial strucutre--or binary formation--of CNPs. Indeed, the lineral sequence of the words constituting a CNP should be analyzed for hierarchical structure of internal relationships and, although it is not always a straight forward operation in long CNPs, a tree diagram (or any other kind of bracketing) showing the hierarchial relationships of the lexical constituents should be provided. It should be remebered, however, that these longer items, more susceptible to present parallel and/or multi-function strucutre (hence, semantic ambiguity) are encountered especially in highly specialized texts and that, readers who are specialists in that particular field and therefore helped by their conceptual knowledge, will generally understand the message conveyed without further difficulties.

Finally in order to disambiguate the unpredictability as well as the so-called semantic ambiguity (often a consequence of syntactic ambiguity) of CNPs, the following recommendations could be made: first, give the students a few pragmatic principles (endocentric feature, function of the head noun and modifiers) on CNP formation; second, explain and illustrate with examples in context the covert underlying syntactical (and hence semantic) relationships; and third, bracket when necessary the more complex and ambiguous hierarchical structure of the phrase.

A note of warning in conclusion: although the findings of the present research enlighten the CNP formation and stimulate further investigation, much still remains to be done along that road which could lead to the establishment of universal semantic principles of CNP formation in scientific writing and in different languages.

by: Francoise Salager; University of the Andes

* *

GRAMMATICAL FORMS IN ENGLISH LITERATURE: A PRINCIPAL COMPONENT ANALYSIS APPROACH[1]

In order to determine to what extent the grammar used in English Literature[2] depends on the kind of prose used (i.e., the text content) and which grammatical forms (determined by their frequency of occurrence) characterize a given genre, we carried out a principal component analysis (PCA) of the frequency table of 41 pre-selected grammatical forms recorded in a sample of 51 texts drawn from 23 different fields (e.g., medicine, architecture, history, novels, chemistry, mathematics, linguistics, sociology, education etc.). To carry out a PCA means to substitute a table of quantitative data by a set of graphs so as to put in evidence the similarities between observed objects (here, the 41 above mentioned grammatical forms). Each text is thus represented by a point in a 41-dimension space since each text is represented by 41 measures (or frequencies). Obviously, this representation is not concretely feasible, but that of our sample given by the PCA is the optimum projection of this 41-dimension space over bi-dimensional spaces (planes).

The graphs thus obtained represent, in a 3-dimension-space, a summary of the initial data (frequencies of occurrence), and allow us to interpret the "distance" between two or more texts from a grammatical viewpoint. The simultaneous representation of the variables permits the analysis of the grammatical similarities or differences. Finally, the order and the number of the axes correspond to the factors that most influence the text dispersion.

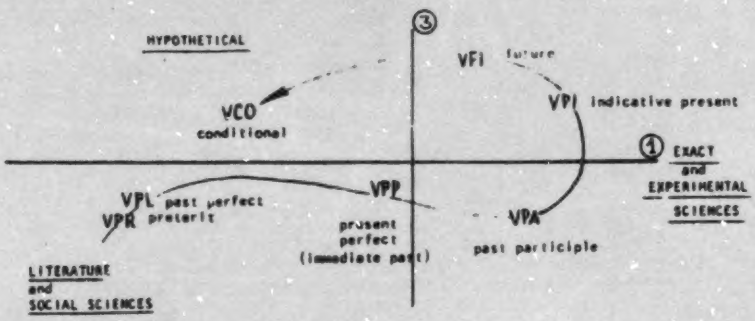
Graph 1 (not included due to space limitations) shows that scientific texts are gathered on the right of the plane (1x2), whereas literary and social science writings are spread on the left, the ones farthest on the left being texts drawn from novels (No 27-28), magazine articles (e.g., Time, Newsweek, No 46-47) and one history text (No 19). As we move to the right, we find education (No 39), sociolinguistics (No 30), arts (No 20), history (No 18) and geography texs (No 24); in the middle position, we can see the first group of medical writings (No 2-3-5: psychiatry and editorial articles); finally, on the right, we encounter texts which present a specifically scientific character: architecture (No 41), biochemistry (No 31), mathematics (No 10-11), metallurgy (No 32), physics (No 14), medicine (No 4-6: a research paper and a case report).

Some "anomalies" can be observed but they can be readily explained. For example, text No 40 (linguistics) appears on the right of the plane (1x23), i.e., it has been classified as scientific-technical; this is because this text is an excert from Sapir's book Language which deals with the acustic properties of language; another example is text No 38 (education) which is also encountered in the scientific group; indeed, this text comes from Cultural Contrasts in Bilingual Education and deals more with anthropology and medicine than with education strickly speaking. As regards text No 16 (electronics), it is found on the left of the plane (1x2) which might seem strange at first sight. But it turns out that it has been taken from The American Scientist; i.e., it has not been written for the scientist but for the layman; consequently, its language is, conceptually speaking, simpler, more familiar and less technical.

As far as the grammatical forms are concerned, the following ones are encountered on the left of the plane (1.2): preterit, pluperfect, negative and interrogative forms, possessive case, demonstratives and the auxiliaries must and have. As these forms are located on the left of the plane, we can say that they characterize literary discourse. Conversely, on the right of the same plane, we find the comparatives, not much, not many, the auxiliary may and the present indicative of verbs. The variables which are represented near the origin are not significant. It thus seems that scientific-technical writings present a high frequency of such grammatical forms, whilst the other forms mentioned as characteristic of literary prose are practically absent in scientific discourse.

Moreover, it appears that the second axis corresponds to the density of grammatical forms (strong upwards, weak downwards); indeed, most of them are located downwards on the plane (1x2) and the variable "number of words" is encountered downwards. However, it seems that this grammatical density is rather idiosyncratic (author's personal style) than characteristic of a given discipline.

On the second graph (plane 1x3), the literary texts are gathered near the horizontal axis; on the contrary, scientific writings are vertically ordered and the following "content progression" can be observed: we first encounter experimental sciences (medicine, microbiology, biochemistry); then, fundamental sciences (mathematics, physics, chemistry) and, lastly, technical applications (architecture, civil engineering, etallurgy). This distribution corresponds to the progression of verbal tensos used in each kind of texts, i.e., past participle, present and future. Indeed, a chain of verbal tenses can be seen on the plane (1x3); it can easily be interested on the figure above.


③
HYPOTHETICAL
VFI future
VPI indicative present
VCO conditional
① EXACT and EXPERIMENTAL SCIENCES
VPL past perfect
VPR preterit
VPP
present perfect (immediate past)
VPA
past participle
LITERATURE and SOCIAL SCIENCES

The present study thus shows that certain grammatical choices are more genre-based than has been previously reported. However, due to the small size of our corpus, the conclusions we arrive at should be considered more as a series of questions to be answered by further research than definite findings characteristic of the universe of English written communication.

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SPECIAL ISSUE: ESP IN TUNISIA

GUEST EDITOR: CHRIS KENNEDY; IBLV AND BRITISH COUNCIL, TUNIS

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OPEN LETTER TO ESP NEWSLETTER READERSHIP

Dear ESP Newsletter readers and EST Clearinghouse users:

For eight years the English Language Institute at Oregon State University has striven to bring you an opportunity to inform yourselves about what some of your colleagues the world around are doing in the fields of ESP and EST. In addition, we have sought to provide a forum in which you could share with colleagues worldwide some of your concerns and experiences in these same areas of English language teaching and research. We hope that we have benefited you sufficiently to merit the confidence you showed as you placed your last subscription with us. We salute you as you carry forward on aspects of ESP/EST issues first aired in the pages of the ESP Newsletter (NL) and/or distributed through the EST Clearinghouse (CH). We sincerely thank the many of you who have contributed articles, reviews, papers, and guest editorial efforts to the NL and the CH.

After more than a year of thinking about the existence of the NL and the CH, and after recent careful re-examination of our mission and our financial resources, I have concluded that the ELI should no longer continue to subsidize the publication of the NL. This, the March 1985, issue of the ESP Newsletter is the last to be published under the auspices of the English Language Institute. (Some questions and answers on the following pages may be of interest if you want more details.)

While the ELI will no longer fund the NL, we do intend to continue our commitment to serving the English language teaching profession, and in due course we will inform you through a direct mailing of the shape of our new effort.

For now, I wish to extend my especially deep appreciation to the following people, without whom the NL and CH could not have been: to Karl Drobnic, the founding force behind the ESP Newsletter and the EST Clearinghouse; to Kathryn Michaels, for recent years the NL's dedicated editor; to Denise Ensign, the most recent of our fine student production assistants; and to Bill Longenecker, who as Coordinator of the ELI at OSU gave me my first copy of the NL many years ago, saying "I think you'll find this interesting". Yet without all the contributors to and readers of the NL and CH, the past eight years of service would have been utterly impossible. To you, my deepest appreciation of all.

Sincerely,
Allen Sellers
Allen Sellers
Director

SOME QUESTIONS and ANSWERS

Background

Q: What is the history of funding for the ESP Newsletter (NL) and the EST Clearinghouse (CH)?

A: Initially sponsored by the AID/NAFSA Liaison Committee, the NL has long since been financially supported chiefly by the English Language Institute (ELI) at Oregon State University (OSU) and secondly by your subscriptions. For a period the NL also derived some revenue from fees charged publishers for advertising; recently, publishers have not advertised in the NL. Costs for CH materials have been set to take into account the expense of duplication and postage; handling costs have been charged to the NL.

Q: How many of us receive the NL?

A: As of October 10, 1984, there were approximately 150 overseas and 200 domestic subscribers.

Q: How does this compare with the previous year?

A: On March 10, 1984, prior to a purge of past subscribers who had not paid for the most recent issues, which they were still receiving, there were approximately 220 overseas and 270 domestic subscribers.

Q: What portion of the NL expenses are met by subscription revenues?

A: On October 10, 1984, a careful estimate indicated that for the current year subscription revenues would total about $3150.00 (350 subscribers x $9.00/year). At the same time, project expenses, including salaries, wages, printing, mailing, and postage, totaled approximately $8000.00 for the year. Thus, the ELI could expect to spend some $5000.00 to subsidize the publication of the NL during Year 8 of its existence. It should be noted that the ELI is a wholly self-sustaining unit of Oregon State University, and as such it receives no local, state, or federal funds; it derives its income from the tuition it charges its students for their ESL training at the ELI. In a very real sense, ELI students have helped bring the NL to the world.

Current

Q: Why is the ELI withdrawing its support of the NL?

A: In our judgement, certain developments have rendered the NL less vital to the profession than it once was. Since the inception of the NL, ESP concerns have found such additional means of expression as the ESP Journal, the English for Medical Purposes Newsletter, the TESOL Quarterly, and ESPMENA, to name but a few. Publishers such as Longman, Oxford, Regents, and Newbury House have brought out major contributions to both the theory and the practice of ESP. The programs of numerous conferences reveal many papers and other presentations focusing on ESP.

Future

Q: What happens to my subscription?

A: It is fully paid up and ends with this issue of the NL. No new subscriptions have been accepted for the period beyond this issue, and none will be accepted.

Q: Where can I get ESP information if not from the NL?

A: Several very good sources have been mentioned above. In addition, look for a forthcoming work under the editorship of Pat Peterson, tentatively titled ESP in Practice: Models and Challenges for Teachers. Published under the auspices of the USIS, this volume will include a section by NL editor Kathryn Michaels on "Resources and Networks". Back issues of the NL, as well as scholarly and pedagogical works on ESP appearing elsewhere, contain many possible sources and their bibliographies.

Q: How can I obtain back issues of the NL?

A: Back issues of the NL are not available from the ELI at this time. Perhaps through colleagues readers can locate back issues which they seek.

Q: What if I have a contribution to the NL in the mail?

A: While we greatly appreciate your turning to the NL as a means to share your work, Kathryn Michaels will have to return it to you.

Q: What about the EST Clearinghouse?

A: Between now and June 30, 1985, the ELI will do its best to fill pre-paid requests for materials from the CH. Address inquiries to the EST Clearinghouse, c/o Denise Ensign, ELI, OSU, Corvallis, OR 97331-3610, USA. We are discouraging the submission of material for the CH, but we will try to acknowledge receipt of material and try to enter it into the CH as before.

Q: What's next for the English Language Institute at Oregon State University?

A: We are considering several plans to continue our support for the English language teaching profession. In addition, we are interested in reallocating some of our previous support for the NL and CH to efforts which will more directly benefit the students who are studying with us here in Corvallis. When we have concluded our planning, we will aprise the current readership of our intentions via a direct mailing to the subscription addresses we now have on file.

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From the Guest Editor

Although there is a long tradition of work in ESP in the Arab world, developments there have perhaps been overshadowed by interest in ESP in Britain and the USA and by major ESP projects in the Far East and South America. Now, however, the situation appears to be changing and interest in the Arab world is increasing. British Council ESP work is taking place in Egypt, Jordan, Syria and Yemen; a new newsletter on English for medicine has been produced by the University of Kuwait; a major conference on ESP in the Arab world was held recently (see Swales and Mustafa, eds. 1984); and an MA in Applied Linguistics for the Arab world is on offer from the University of Salford, England. North Africa, and more specifically Tunisia, is sharing in this renewed interest. Tunisia has a number of features in common with other Arab countries, but it has a particular fascination since ESP is being developed in a country where three major languages (Arabic, French and English) are in a state of flux. ESP in Tunisia was marked by the Hammamet conference (see Payne, ed. 1979), but has attracted comparatively little international attention since. We hope that the creation of an ESP Resources and Advisory Centre at the Institut Bourguiba des Langues Vivantes (IBLV), Tunis, under the direction of Dr. Mohamed Maamouri, Director of the Institute, will mark a new phase in the development of ESP in Tunisia.

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THE KELT ESP PROJECT, TUNISIA

KELT (Key English Language Teaching) posts are funded by the British Overseas Development Administration and managed by the British Council. They are designed to assist the teaching of English in the developing world. The KELT ESP Project in Tunisia was started in October 1983 and will last for four years, after which it will continue but with Tunisian staff and funding. It has as its objectives the establishment of an ESP Advisory Unit based at the Institut Bourguiba des Langues Vivantes (IBLV), Tunis, which will be responsible for advice on methods; development of material; and further training of ESP teachers in all Tunisian Institutes and Faculties of Higher Education. Although, therefore, it is based in one university institution, it is responsible for advice to some 30 other university institutions in Tunisia (see survey of ESP following). Much of the credit for this outward-looking approach must go to the director of the Project, Dr. Maamouri. The Unit is staffed by a KELT ESP Advisor, at present the writer.

For the purposes of this paper, we should like to distinguish between two sorts of ESP development projects. One has as its aim the production of a textbook. Such an enterprise often has a heavy expatriate input, there is normally considerable finance involved, and the outcome may be the production of an international edition of the materials. Such projects are important and necessary and can often produce innovatory materials and research. However, in the context of development, they do have their dangers. One is that because of the number of 'outsiders', the heavy commitment of the financial backers, and potential international scrutiny, the innovation may be put under pressures that could for example eventually produce materials that may not 'fit' the local context or that may neglect the local teaching force. At the end of the project, 'the team' withdraws, and the long-lasting effects of the innovation are not clear. The second type of project may have more diffuse aims and often involves an 'adviser', whose job it is to work closely with officials and teachers in development work, which may include teacher education and which may involve the production of materials, thought not necessarily a definitive textbook. The KELT ESP Project with which we are concerned here falls into the second category. It is in some ways a more difficult undertaking than that in the first category, since it is essentially reacting to needs and wants which may arise in the course of the project, rather than achieving a pre-determined objective.

Now what these projects have in common is that they will be introducing change and innovation to a greater or lesser extent. Yet is is surprising how minor a role theories of change and innovation, the literature of which is vast, appear to play in the rationale of such work. Till now, work in ESP, and indeed ELT, has tended to be somewhat inward-looking, and ignored relevant work in education, sociology and management, perhaps in an attempt to create a professional identity for itself. Work in ESP has centered around materials rather than the broader context in which the materials will be introduced, and there is always the argument that development work is only the application of commonsense with no need for a theoretical background. The catalogue of disasters in development work in other fields (Desowitz, 1981) should be enough to convince sceptics that a more theoretical approach is necessary.

Briefly, the findings of development theory which are most useful are the following: that change can only be effected if there is a genuine felt need--people will change if they regard the innovation as beneficial in some way or if they are dissatisfied with the existing situation; that the innovation must be set within the existing social and cultural framework; that it is more likely to succeed if those receiving it regard it as feasible and acceptable and relevant; that the greater the degree of 'ownership' of an innovation, the greater the likelihood of adoption. Innovation theory also suggests a number of useful strategies by which change can be effected, among them being (Bennis, Benne and Chin, eds. 1970): (i) a *rational-empirical* strategy by which it is assumed that by presenting information those concerned with the change will adopt it; (ii) a *normative-re-educative* strategy which assumes that for change to take place, attitudes and skills will need to change also. This strategy involves participation in the change, on the basis that the innovation will only succeed if those for whom it is intended actually take part in it. The role of the agent of change here is less of an information-given (strategy i) and much more that of a collaborator, all participants being involved in decision-making. The ESP Project has found the second strategy (normative-re-educative) the most effective for introducing major innovation, and the first (rational-empirical) useful in certain instances. We have also found the concept of working within the existing system and the notion of 'ownership' crucial to successful change. Let us look at this in more detail.

Initial strategy has been to go out and inform the Ministry of Higher Education, the Deans of Faculties and Institutes, and the teachers, of the existence of the Project. Its aims and objectives have been presented, and the sort of assistance outlined, e.g. advice on syllabuses, materials and further training. This aspect of the work is continuing. We have found it important to keep in regular contact with Ministry officials, Deans and teachers by personal visits and regular short reports. This dissemination of the work has been assisted by the creation of TESP NEWSLETTER, two issues of which have now been produced and which is sent to all those interested in ESP in Tunisia and abroad. Items have already been contributed by local teachers, and it is hoped in accordance with the principle of 'ownership' that in due course responsibility for the contents, production and distribution will be taken over by Tunisian teachers. At the suggestion of the ESP teachers, four seminars have been planned for each academic year in Tunis and three a year in Tunisia's second city, Sfax. Teachers are encouraged to contribute actively by giving short talks and by asking their respective Deans to host the seminars, which has encouraged participation in the Project. We do not believe that seminars can effect great changes, but they do help to create a sense of professional purpose among the teachers and are useful as a forum to put forward ideas and create a climate of discussion. These activities belong to strategy (i) and are essentially information-giving. Those working in ESP at the different levels in the system therefore have a framework in which to initiate action or requests for assistance--the activities can act as a trigger for further development work.

No direct steps are taken to initiate change or innovation. Action is only taken when Deans or teachers request involvement in the Project in some way. We regard this as an important principle. Only if the first move is made by an institution can we be sure that a problem has been identified and that a willingness to change is already present so that any subsequent innovation will stand a greater chance of being implemented and on a long-term involvement. Thus, there may be a request for advice on books or general problems of syllabus design. The second form of assistance is more long-term and may have more far-reaching effects. This operates when a group of teachers ask for specific help normally with materials preparation. Strategy (ii) is appropriate here with the Adviser acting very much as a catalyst and collaborator with all decisions taken as a group and work tasks shared among the individuals. So far, two teams are involved in this type of work, both in business/economics Faculties.

A further development has just been initiated this year which is the formation of a small group of ESP teachers. Again, the mode of operation is strategy (ii) with the teacher themselves taking as many decisions as possible. The group is working on a test to find out whether Tunisian students can use certain discourse-processing strategies while reading, and if so, whether these strategies are specific to one or more of their operational languages (i.e., Arabic, French and English). This is a very encouraging development. Firstly, because teachers are hard-pressed for time and have other commitments outside teaching, they quite understandably give priority to working on materials production rather than research however much applied. They see their jobs quite rightly as providing a service for their students. So it is good that a group is prepared to stand away from the immediate demands of teaching and to give up the time to participate in research. Secondly, as R.M. Payne points out in this issue, the difficulties in conducting research in Tunisia are such that we have little information for example about the problems of Tunisian students learning English in ESP contexts. Any information on this topic is therefore to be welcomed--doubly so when the research is being carried out by the ESP teachers themselves.

by: Chris Kennedy, ESP Advisor
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A BRIEF SURVEY OF ESP IN TUNISIA

The three major languages in Tunisia--Arabic, French and English--are in a state of change which is considerably influencing the development of ESP. The use of Arabic is spreading and slowly taking over many of the functions formerly served by French. The French language, therefore, which was formerly used extensively for communication within the country is having its role restricted to that of an international language (i.e., used for communication outside the country). However, in this role, it is now competing with English. Formerly, English in Tunisia was studied for no particular purpose other than that of being part of an educated person's intellectual and cultural baggage. Now, its role as an important tool for international communication is being reflected in Tunisia. More business is being conducted with the anglophone world and with those countries like Japan who do not share a common language but who are likely to operate in English. Technology exchanges, particularly with the USA, highlight the need for English, and researchers are increasingly feeling the pressure to read English-medium journals and periodicals to keep up with developments in their field. In some cases they feel that their research will not reach a wide enough audience unless it is written in English. Although it must be emphasized that in most cases Arabic and French remain far more important than English, a knowledge of English may therefore give the businessman or researcher an advantage in his work. There is also a less tangible psychological preference for English rather than French emerging and a general impression that more use would be made of English if a greater number of people felt competent to speak it.

It is not surprising therefore that the number of Higher Education institutions teaching English as a service subject is considerable. Twenty-seven out of 44 Higher Education institutions have English on the curriculum. Many of the 17 institutions that offer no English are fairly minor and the list of 27 represents the major institutions and the most important content subjects--Sciences (nine institutions); Social Sciences (mainly business and economics, five institutions); Medical and Biological Sciences (three). The remaining Institutes cannot be neatly grouped, as they involve the training of, for example, journalists, the armed forces, architects, pilots and air traffic controllers, merchant marine officers and hotel staff. Most of the 27 are in Tunis or nearby; eight being in the other four major towns in Tunisia. The importance that is attached to English can be measured by the fact that of the 27 institutions, 14 (and they include all the major institutes except the Medical Faculties) require a pass in English in the school leaving certificate. In addition to the Higher Education sector, there are a number of public enterprises that run courses for their staff--these include banks and finance companies (three); Tunis Air; the National Computing Centre; and oil companies (four).

Given the wide variety of Higher Education institutions teaching ESP, it is difficult to make too many definite statements about the situation. However, it appears that there are few cases where English is actually needed to graduate in the subject studied (except in a legal sense). Lectures are generally conducted in French, papers written in French, and most academic literature will be available in French. English courses may have to be taken as a legal requirement, but a student could pay lip-service to them and still graduate in his subject. Admittedly, the need for English tends to increase at post-graduate level or if the student joins a firm where he may need to read a little (often telexes) or communicate with visitors. The situation is very much one of deferred rather than immediate needs.

Students are generally interested in English, though as a reflection of the situation described above they will quite naturally given precedence to their subject speciality. The examination weighting given to English is low in comparison to the specialist subjects and students are expert at calculating the relationship between weighting and effort required to pass the exam. Given that the students' exposure to English both in and outside the institution is fairly minimal and that English is a third language for them, their competence, especially in speaking, is remarkable. They have fairly traditional attitudes to teaching and learning and are used to a teacher-oriented and code-based approach to language, but it would appear from work undertaken within the KELT programme that they are willing to consider change if it can be shown that it will be beneficial and motivating. They are extremely conscious of the face validity of material and will reject immediately anything that they regard as irrelevant or trivial. Teachers of ESP number almost 100 full-time teachers as well as part-time. Their standard of English is high. They appear to suffer from the same problems that ESP teachers world-wide complain of--low priority in timetabling; lack of contact with other staff and other ESP teachers; low status in comparison with other subject specialists. A major problem is the lack of teaching materials, since British and American publishers have not yet been able to penetrate the market, given the complex and time-consuming procedures required to get books into the country and the bookshops' traditional attitude of looking to France for supplies. Teachers may underestimate their students' ability in some respects since they tend to judge them on accuracy rather than fluency. At the same time they can overestimate their comprehension and can sometimes present them with complex texts on their subject speciality, as early as the first year of university study. This may come from a lack of overall planning. Team work among ESP teachers is the exception rather than the rule, and one result is that a university course in ESP may not be planned as a graded four-year course with stated objectives and gradually increasing in complexity, but rather as a series of independent courses taught by individual teachers. It may also be an outcome of the 'explication de text' approaches used in some institutions where 'explanation' of the text by the teacher precedes the reading of the text by the student. Such complex texts cannot be used in a more learner-centred approach where the student immediately engages with the text, as in this case the density of unknown vocabulary would prevent comprehension. These, of course, are the sorts of issues that teacher-training programmes could address, a subject that is taken up in the next article.

by: Chris Kennedy, ESP Advisor
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THE TRAINING OF ENGLISH STUDENTS AT THE FACULTY OF LETTERS, UNIVERSITY OF TUNIS

Introduction. In developing countries aspirations to emulate industrialized countries have occasioned emphasis on improving training in science and technology. Since English has become the pre-eminent language in many scientific and technological fields the demand to learn it has correspondingly increased in the Third World. The need for teachers of English for specific purposes (ESP) has consequently risen as well, but the training of such specialists has not always kept apace nor been appropriate. Tunisia is no exception to this pattern, and a brief examination of how teachers are trained there may exemplify common problems.

English language teaching in Tunisia. Since Independence (1956), the study of English has steadily gained ground in this North African country. The language situation of this former protectorate of France is complex (Payne, ed. 1983). In addition to Modern Standard Arabic (MSA) and French (both taught in primary school), a foreign language is taught beginning in the fourth year of secondary school, English being chosen by the vast majority.

In secondary schools, MSA and French are the teaching languages and are studied well. Pupils will study English about four hours a week during the final four years with some variation according to the type of school. Teaching in most lycees is generally audio-lingual, based on a textbook series written in the seventies through a Ford Foundation and British Council collaborative undertaking. At the end of the seven-year secondary school, pupils sit for a national examination, the baccalaureat. It must be added that the education to a large degree was inherited from the French during the Protectorate period (1881-1956) and still resembles that model.

Pupils who are successful in the baccalaureat examination--about 49% including repeaters--are streamed by the Ministry of Higher Education into various fields of study in accordance with their abilities and (to some degree) desires. (It is pertinent to mention that the streaming system, inaugurated in 1972-73, was part of a concerted effort to augment the number of students studying science and technology at institutions of higher learning.) They are then assigned to various branches of the university which are found in cities throughout the country in line with a government decentralization policy. English teachers at these institutions have in the past been recruited primarily from the ranks of secondary school teachers.

The training of English teachers. Approximately 400 students each year are streamed into the English Department at the Faculty of Letters to being a four-year course of concentrated study in English. The attrition rate is high, but with total enrollment over the four years of over 1,000 students, the English department is one of the largest in the Faculty of Letters (Faculte des letres et Sciences Humaines). The undergraduate study consists of two 'cycles', and graduate courses make up the third cycle. The physical conditions of study are spartan and the library inadequate for most research purposes.

Most of the English language teachers in the country are products of the first two cycles, about 200 being graduated in English each year. The first cycle (first two years) is composed of a common core of courses (languages, British and American literature and civilization, and translation) organized on a year-long basis. The last two years (or second cycle) are arranged into 'certificats', a cluster of two to three courses. The courses relevant to English Language teaching (ELT) and to a degree to ESP are those in linguistics ('Introduction to Linguistic Theory', 'History of the English Language', 'Structure of the English Language') and stylistics ('Translation Theory', 'Comparative Stylistics', where ESP gets mention), also being given on a year-long basis. If the candidates get through the final examinations, they are awarded with a maitrise (not to be confused with the US or British Master's degree, which it often is), providing they have had a stay in an English-speaking country, a requirement the Faculty assists students in meeting, including French teaching assistantships in Lousisana. No instruction at all is offered in language teaching methodology.

Graduate study (or the third cycle) at the Faculty counts two degrees, the Certificat d'Aptitude a la Recherche (CAR) and the Diplome de Recherches Approfondies (DRA). Rather than 'degree', the CAR more properly might be termed a prerequisite credential for graduate study—students have had no experience at all in writing research papers at the undergraduate level—and involves only the completion of a memoir, a research paper, of 80-100 pages and an oral defense of it. It is, however, at this point that ESP as a topic can be investigated. Up to this date (1985), students have been encouraged to appraise the extent of ESP at various institutions with the practical aim of acquiring some notion as to what the system of higher education is facing in terms of manpower and programme needs (eg, Abdelmalek 1982). After the CAR comes the DRA, the highest degree offered by the English department. It can theoretically be completed in two years, though four to five years is more the rule. Notwithstanding the fact that all DRA candidates must declare their major as literature, civilization or linguistics, all must take a common core of four seminars in British literature, American literature, Anglo-American civilization and linguistics—the exact topics are fixed by the professors—plus seminars in research methodology and translation, adding up to a total of seven hours per semester. Students sit for an examination at the end of each semester, writing on one topic from the four seminars, which has been selected by the department chairman, followed by an oral examination of a topic from one of the other seminars. A thesis, usually 200 to 300 pages is the final step, and allows for concentration in a particular field, the precise area of research being arrived at after consultation between the advising professor (directeur de these) and the candidate. The thesis must be 'defended' in public. (Out of the seven theses presented in linguistics, two (Salhi 1984, Reguiai 1984) have dealt with the spread of English in Tunisia and have given some account of ESP in the country. A further one is forthcoming (Hemissi).) The DRA will entitle the bearer to various advantages in the Tunisian civil service system, including teaching positions at state higher education institutions.

Other sources of training. The teachers' college, the Ecole Normal Superieure, situated in Sousse, prepares 15 to 20 teachers of English each year, and the curriculum includes a general course on the psychology of learning and allows for practice teaching, but no attention is given to ESP. ENS students transfer to the Faculty of Letters for graduate work. At the Institut Bourguiba des Langues Vivantes (IBLV), two degress are offered, the Maitrise de tradition and the Maitrise Combinee de Langues, and language courses in English for specific purposes figure in the curriculum. The purpose of the IBLV is not to prepare teachers of English, though some eventually do teach it. To provide information about ESP to teachers who are already on the staffs of institutions where it is required, foreign organizations (the Ford Foundation, USIS, the British Council) have sponsored seminars in this field, the first one taking place in 1975 (Payne, ed. 1979). Mention must also be made of the two-year-old KELT Project which has already had an appreciable impact on ESP in Tunisia.

Conclusion. It is only at the graduate level of the Faculty of Letters that the student of English can investigate ESP, and this is accomplished mainly through independent study. No courses are available which deal with ESP in any depth or which will prepare the student for classroom teaching of this sort. Further more, his research will be hampered by the lack of library holdings. Because of the resident requirement in an English-speaking country, graduate students have a good knowledge of both spoken and written English. Teachers practising at institutions of higher learning acquire information about ESP by dint of their own labours and at specialized seminars.

Comment. The English language department at the Faculty of Letters of the University of Tunis may be typical of similar programmes in developing countries, especially those which were dominated by France. The educational system found in such countries is comparatively rigid and resistant to innovation, thereby sluggish in responding to social, economic and political changes within the nation where the development process is underway. Despite some evolution in the former colonizer, there is often stagnation in the borrowing countries with consequent fossilization of curriculum and resistance to change both by teaching staff and students (even though modifications may be in their interests). It is hoped that the announcement of sweeping revisions in the curriculum at the Faculty of Letters at the University of Tunis will bring about a more relevant, wide-ranging and flexible training, thus providing an example for institutions with similar backgrounds elsewhere.

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THE 'PIONEER SCHOOL' FOR THE TEACHING OF SCIENCE THROUGH ENGLISH

The 'Lycee Pilote pour l'enseignment des sciences en Anglais' is called in English the 'Pioneer School', appropriate for an undertaking which is not only without parallel in Tunisia, but is also unusual elsewhere. We have a situation where children from the age of 12-plus are being taught the sciences and math in English—a language which is neither their mother tongue nor a second language. In Tunisian secondary schools, French is used to teach all the sciences, math, and technical subjects. It is thus a content language as well as being studied in its own right. Arabic is used for all other subjects. So though Arabisation is spreading, Tunisia remains a bilingual situation with most educated Tunisians able to switch from Arabic to French with enviable ease and fluency. English has been very much the poor relation and, in fact, is not taught in most lycees until the fourth year. In such a situation, it may seem strange for a school like the Lycee Pilote to emerge, but Tunisia appreciates that English is the language of science and technology and recognises the country's need for a well-trained workforce in both theoretical and applied science. In response to this, a large number of scholarships are provided for Tunisians to study in the USA at both undergraduate and post-graduate levels. Many such talented Tunisians have their studies unnecessarily lengthened by their weakness in English and one possible solution to the problem was seen as the creation of a secondary school teaching the sciences in English. The students will, it is hoped, be competent enough in English at the end of their secondary school career to study overseas without any language preparation programme.

Whilst the school itself is innovative, the syllabuses of the individual subjects remain the same as in other lycees with one or two minor differences. The curriculum itself also follows the national pattern with a major difference being the number of hours devoted to English and a consequent drop in the amount of French taught. The children attending the school could be said to be an academic elite in that they are drawn from the top 300 scorers in the national entry exam for secondary school taken by all children at 12. These 300 children have the choice of attending a normal lycee, or one of the two lycees specialising in the teaching of science--that is, the Pioneer School or the Lycee Bourguiba (which follows the national pattern of French-medium science teaching). However, it is important to realise that these 300 children do come from a fairly wide spread of background and from all over Tunisia. What motivates parents to choose the Pioneer School which is such a break with tradition is unclear, but one factor may well be a growing feeling that English is now the international language of science and technology. The two issues which are central to the project are: a) how are the children to acquire enough English to cope with learning math in English immediately on entry to the school and science after three months, and b) how can children learn science and math in a foreign language and how can the teachers be trained to teach their subject in English?

Looking first of all at the teaching of English, during the first few months at the school the children are subjected to what we could call 'immersion' teaching--having 16 plus hours a week of English (which drops to 12 in the second half of the first year, and to eight in the second year). The Inspectors in English and the English teachers (all Tunisian) worked together on the construction of a new syllabus--it was obvious that the normal Tunisian programme could not be followed since it has been designated for an older age group with different objectives. In everyone's mind was the realisation that children would be learning science and math, so the syllabus and materials needed to take account of this and introduce the children to a certain amount of scientific and technical English. This proved quite a hard task since no one really knew that kind of language demands would be made on the children in their science classes. It was obviously a more complex matter than mere vocabulary learning--and the vitality and short interest span of 12-year-olds militated against the usual type of ESP materials. Moreover, most ESP has developed at the tertiary level where it is assumed (rightly or wrongly) that the student has a good core of conceptual knowledge, a fairly well-formed framework within which new information can be slotted. Here, however, we have a situation where most of the concepts as well as the language are new to the children, though there are some exceptions to this in the math programme. In any event, a first year book was written by a team of teachers which had a small ESP component in it--but it became evident that a more rational approach would be to try to mesh the science and English programmes together more closely. The writing of the first year coursebook was a heavy commitment and for years two and three a published coursebook has been adopted with an ESP component. This has freed the English coordinator from the heavy demands of materials writing and enables him to concentrate more on pedagogical aspects and the writing of supplementary materials. It also gives more time to the consideration of how best the English programme can help the science and the idea of a study skills approach is emerging.

Whilst all the teachers, administrators, bursars, monitors, etc. are involved in a new situation, the Tunisian science teachers are at the forefront of the project. Not only are they having to teach their subject, be it physics, biology, etc., but they have to do so in a foreign language. Moreover, they are teaching children in a language they have only recently started to learn. How is this seemingly impossible task managed? First, there is a comprehensive training programme for the science teachers which involves a year's study in England (at Leicester University)--where they learn English and undergo a period of science teaching in British schools. Secondly, language refresher courses are held every year whereby a certain number of science teachers return to England to maintain their language. Thirdly, there are regular seminars held at the school when visiting specialists cover pedagogical topics in English, e.g., 'Language in the Classroom', 'Tests and Testing'. Other language maintenance programmes will develop as the school becomes established, but it remains a problem because essentially English is a minority language in Tunisia and outside the classroom teachers have little opportunity or need to use English.

One of the important features of this project is the twofold task of the science teachers. Of course they have to teach their subject content; but they also have to teach, albeit indirectly, the language that will make the subject comprehensible to children. In science, no less than in other subjects, language is a crucial determinant of how well children acquire scientific concepts and perform in the science classroom. There has been much work on scientific register in the classroom--how far it is necessary, does it impede learning. So an issue recognized to be of paramount importance for native-English teachers of science will likewise be vital for Tunisian teachers of science through English. The central role of language in learning, the need to see the close links between content and language and the subject teacher's responsibility in this direction are all issues which the 'Lycee Pilote' teachers become more aware of day by day.

In an ideal world perhaps a syllabus would have been designed with all these factors in mind, but since the national syllabus is to be followed, this was not possible, though certain compromises were allowed. Thus content was marginally reduced. Since few published materials meet the very specific requirements of the children (i.e. they must take account of their language level and they must conform to the national syllabus), teachers must have written many of the materials themselves with the aid of a British materials consultant. However, whilst it is true that if the materials are written by the teachers themselves they are more likely to be successful, this has caused problems. Most materials writing projects are fairly long-term with a lead-in time for some kind of needs analysis. At the Lycee pilot materials have had to be produced concurrently with the programme, with little time for reflection or analysis, by teachers with no special interest or experiences in materials writing and with very little back-up in the way of secretarial or reprographic help. The big advantage, however, of such an ad hoc procedure is that changing circumstances can result in quick and immediate changes in materials, and the materials have validity for the teachers because they helped to write them.

Within the classroom itself the teachers cope remarkably well and often an outsider's preconceptions about pedagogical practice are changed. For example, it might be thought that the science teachers should try to use language in their lesson in as many different ways as possible--using different words and expressions, asking questions in different ways so as to extend and develop the pupil's own use of language. In fact, partly because of the teachers' own language limitation and partly due to the rather controlled and formal nature of the teacher, the teachers' language is controlled, rather repetitive and somewhat limited. But in the early years at least, this seems to help the child who is not confronted with too much language. Native-speaker science teachers, on the other hand, might well tend to explore a subject enthusiastically but use language outside the range of the child's linguistic ability.

One of the tenets of science teaching has been to relate science as much as possible to the child's own environment and experiences. This is not easy because often a child cannot respond because he only has the 'words' in Arabic. Thus the aim of the lesson in scientific terms can be obscured by the relentless need to explain the language. This is more of a problem with biology which is heavily descriptive science with a dense syllabus. Furthermore, much of the work in, say, England, on encouraging science teachers to use 'natural language' or 'the language of the child' is hardly relevant--to the Tunisian child, explaining 'molecules move randomly' as 'molecules bump and jostle' is hardly a simplification. Thus technical language for these children may be easier to assimilate than non-technical language.

One of the most interesting things about the project has been the realisation that however much planning is undertaken, there will be unexpected and unanticipated outcomes. Thus teachers have found that for children with little language, the approach to learning science must be a very practical one. To a certain extent, therefore, the teachers may be adopting a less didactic role than is the case in many Tunisian schools. Equally, activities which may never have been thought of as part of a science class become incorporated into a lesson, e.g., reading and writing exercises designed to reinforce language as much as to teach science. To some extent, it is not just a question of teachers having to teach their subject in a foreign language, but of having to change their whole way of operating, even to the extent of changing methodologies. It is not just teachers, however, who find their roles unexpectedly different. Because the school is operating a new programme, administrators have had to assume a greater responsibility for pedagogy than is usual and may have to make decisions which they would not normally be asked to make. The relationship between teachers has been forced to change, too, for collaboration between science teachers becomes very important, and even more unusually for most lycees, joint meetings are held between the English and science staff. The relationship between Inspectors and teachers is subtly different too, in that the teachers who teach science in English are advised and observed by Inspectors who may not themselves be very proficient in English. So the teachers and Inspectors have to develop a system of mutual aid.

Thus, any change in a system may produce problems, but their solution may well produce a greater change in the system than the original idea. Put more simply, all innovations produce unexpected outcomes and sometimes these outcomes are more radical and hard to come to terms with than the original innovation. Teaching in English at the Lycee Pilote is a major change but one for which teachers were and are being trained. The changes it has necessarily brought in its wake may be equally radical but teachers and all concerned may not have been equally well-prepared. This applies at all levels from the top down--asking the teachers to take on extra roles and responsibilities means they, in their turn, may ask for rewards and this is a decision to be taken by the Ministry of Education. Equally, any such decision would have its repercussions for the total school system involving pay structures and promotion, etc. In conclusion, we have in the Pioneer School a truly brave and fascinating adventure--like all adventures the way ahead is largely unknown, full of perils but also hopefully of triumphs. The success of the school so far shows that we can be optimistic about its future and the progress of the children in both English and science will raise and answer some interesting questions about the relationship between language and the acquisition of scientific concepts.

by: Judith Kennedy
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A READING COURSE AT THE INSTITUT SUPERIEURE DE GESTION (ISG), TUNIS

The Institut Superieure de Gestion (ISG) is part of the University of Tunis. It runs a four-year undergraduate programme (divided into two 'cycles' each lasting two years) after which the students graduate with a business studies qualification. There is also a two-year post-graduate programme. After completion of their studies, students join businesses; a few go to the USA for doctorates.

Courses are conducted in French and although the library is well-stocked with specialist books in English, there is little need for the student to use English in his business studies, especially in the first two years of his course. In the second more specialised cycle, he has to prepare a paper on a business topic, and although this is written in French, students are encouraged, especially by those lecturers trained in the USA, to refer to articles from English-medium journals and books. This is not, however, a requirement. At the post-graduate level the need for access to academic literature written in English becomes greater, especially for those who have ambitions to study abroad. A sufficient knowledge of English to pass the TOEFL test also becomes important at this stage. When the students start their business careers they may need English occasionally for interaction with foreign businessmen, but a knowledge of English is not mandatory for most jobs. So we have a situation in which there is a need, though not great, for English which increases as the students move further up the educational ladder. In terms of the wants of the students, they are for the most part fairly well-motivated (though this may vary according to speciality), although their subject speciality takes precedence. There is little doubt, however, that more students would use English in their studies if their competence were greater. Lecturers would also be inclined to give more references in English if they were confident of their students' ability to read authentic texts in English.

A needs analysis revealed that high technical texts were not wanted by the students in the first cycle but that they felt topics should be related loosely to business studies and social issues in the Third World and Tunisia. Reading was given priority by the students, though the importance of listening and speaking was also emphasized. Vocabulary and to a lesser extent grammar were also important.

The team of English teachers at ISG met to discuss involvement in the KELT Project, and it was agreed that the second year programme should be revised. Meetings were held regularly during the year to draw up materials blueprint. No writing of materials was attempted except in the form of one or two specimens until the end of the academic year. This was a deliberate decision and an important feature of the development work. Blueprint planning, whereby a document is gradually drawn up containing the syllabus, the parameters of materials design, and the unit structure, has a number of advantages.

Materials can quickly become fossilized once written, and it is important to postpone the moment of writing for as long as possible. By the time the blueprint is complete, most decisions relating to materials production have been taken and agreed on by the group. The process of writing itself, when it takes place, can therefore be rapid and is not held up while issues are debated. This is not to say that a blueprint is immutable. We shall see later that our evaluation of the materials resulted in changes. Below we list some of the features of the reading course that has been developed.

1. Objectives. We decided that by the end of the year, a student should at least be able to extract the main points from an article taken from a magazine or newspaper, understand important details, and discuss the issues raised.

2. The Units. We decided on 15 units on a variety of topics related to business and social issues relevant to Tunisia, the Arab world, and developing countries. Each Unit lasts approximately 4 1/2 hours and consists of a pre-reading activity to prime the students, a while-reading activity, post-reading, grammar, and lexis.

3. Approach. Our basis for the design of the reading section was drawn from current theories of discourse, in particular the notion of clause relations and information structure (see for example Hoey, 1984). The text is broken up into semantic 'chunks' and appropriate exercises designed around them.

4. Procedure. Students are encouraged to go for the meaning of the text, ignoring or guessing the meaning of unknown words and only concerning themselves with grammar and lexis when understanding is blocked. The design of the materials and the methodology adopted are explicitly formulated to achieve this end and to shift the responsibility for learning from the teacher to the student.

5. Lexis. We regarded lexis as very important. Students said their major problems were lexical in nature and so exercises that follow the reading of the text attempt to develop the students' vocabulary and their knowledge of word relationships, such as synonymy, hyponymy and collocations. No overt attempt is made to teach lexis before the text is read. We wanted to wean the student away from too much concentration on individual words in a passage which can slow down reading and impede comprehension. Much of the necessary vocabulary is introduced incidentally in the pre-reading exercise and any words that cause problems in the while-reading activity are dealt with on an ad hoc basis by the teacher circulating round the class as the students read silently.

6. Grammar. No traditional sentence-based grammar was included in the materials initially for two reasons. Firstly, we felt that the student came to ISG with a fairly good knowledge of the code, and we wanted to show them that this knowledge was in most cases sufficient to understand the text in the way we were presenting it. Secondly, we were not confident we could identify those grammatical points that prevent comprehension and hoped that the materials themselves, when taught, might help us. The sort of grammar we did teach, however, was that on inter-sentential discourse markers, which we felt the students were having difficulty with.

Word must be mentioned of the evaluation of the materials. Care was taken in the project to involve the students as much as possible in the creation of the materials, and we feel this is a major reason for what appears at the moment as a fairly successful course. Not only were the students consulted during the blueprint stage, through a needs analysis, talks and odd lessons given by the KELT Adviser, but an evaluation sheet is issued to the students at the end of each unit, and more importantly, we have acted on the results. Most of the responses were favourable, but three items in particular are worthy of comment.

1. Lexis. The students wanted more lexis directly related to the text. We have reacted to this by asking students, once they have finished a unit, to produce, in groups, lists of words they were still having problems with. We then drew up a frequency list (the students refer to this as the 'Top Ten') and produced a glossary with short exercises to practice the words which cause most problems.

2. Writing. Some students felt they would like some writing. We responded to this request by adding a series of graded exercises so that by the end of the course the students would be able to write a short paragraph summarising the topic of the text read. This reinforces the reading and also answers student request for a resume of the unit.

3. Grammar. The students were quick to distinguish between what they have termed 'the teachers' grammar' (in this case, discourse markers), and 'the students' grammar' (traditional sentence-based grammar). We were surprised that the demand for traditional grammar was not as widespread as we had originally anticipated, and we ourselves were still reluctant to introduce grammar. However, we wished to satisfy the minority that demanded it and so have added a short section on sentence grammar using items which we think cause the students most problems.

We had taken an earlier decision not to write more materials for other years, but to spend time evaluating the present materials, and we feel this has been a wise move. It has given us information that we can feed into future materials, and the students have appreciated being consulted and are somewhat surprised that we have actually acted on their recommendations. As one student wrote: 'Il est rare que l'estudiant puisse donner son mot sur la facon de faire un course'. We are cautiously optimistic about the success of the course. Exactly why it appears to be succeeding is a complex question, but at least one of the factors must be the degree of cooperation and collaboration which has been achieved between all those connected with the project from the Dean to the teachers and the students.

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